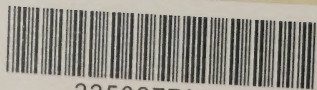
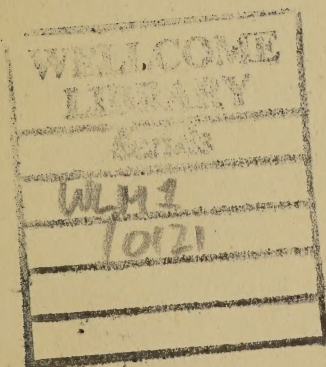




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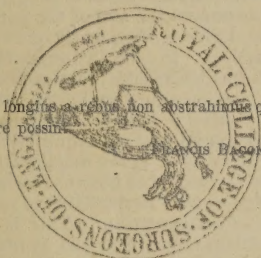
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AND

HENRY MAUDSLEY, M.D. LOND.

"Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et
radii (ut in sensu fit) coire possint."

Francis Bacon, *Proleg. Instaurat. Mag.*



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"In adopting our title of the *Journal of Mental Science*, published by authority of the *Medico-Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanician uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—J. C. Bucknill, M.D., Lond., F.R.S., Lord Chancellor's Visitor.



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VOL. XIV.

PART I.—ORIGINAL ARTICLES.

The Care and Treatment of the Insane in Germany. By W. GRIESINGER, M.D., Professor of Clinical Medicine and of Medical Psychology in the University of Berlin. Translated from the German by JOHN SIBBALD, M.D., Edin., Medical Superintendent of the District Asylum for Argyllshire. (*From the Archiv für Psychiatrie und Nervenkrankheiten in verbindung mit* DR. L. MEYER *und* DR. C. WESTPHAL, *herausgegeben von* DR. W. GRIESINGER. Berlin, 1867. No. I.)

I HAVE been frequently obliged to give expression to my views on asylums and their future organisation. These views are expressed in official documents and private letters, which have never been published. A few observations which I made cursorily at the Naturforscher-Versammlung, in Hanover ("Zeitschr. f. Psychiatrie," XXII., p. 390), as an indication of my point of view, were much too briefly and aphoristically given not to be subject to misconception. I therefore propose to devote the following pages to a connected, though necessarily brief, explanation of what I believe to be necessary or advantageous in the immediate future arrangement of lunacy matters in Germany, and to indicate towards which side I lean in the undoubted crisis which the question of the public provision for the insane has now reached. I apprehend neither detriment nor danger in this crisis, which is merely the progress towards more complete organisation. To wish to ignore it

would not improve the matter. The predetermined conclusion to see the only good and right possible in things as they now exist is a far greater hindrance to the discovery of truth. If science can present new points of view, if urgent wants are brought to light, which cannot be satisfied by the present means of publicly providing for the insane, the requirements must not, in such circumstances, be ignored or denied, but the means must be made to suit the necessities. It was in this way that things were treated when the present asylums were founded; and is it possible that at the present time no further advance can be made? It is, however, to be remarked, as was said a few years ago by Damerow, who was for the most part an authority with the opponents of reform (*"Zeitschr. f. Psychiatrie,"* XIX., 1862, p. 187), "There is nothing further to be obtained in the future with the present public institutions for the cure and care of the insane."

Why not? Certainly not for the reasons which Damerow himself had in view, because the mass of patients crowding into the public asylums is continually augmenting, and because it becomes more and more impossible to provide for them all by our present system. Quite as important as these rather *ab extra* circumstances, there are reasons *ab intra*, resulting from the further development of science, obtained by a more accurate knowledge of the relative morbid conditions, and more general appreciation of the more and more numerous facts which point to new organisations in the department of public provision for the insane.

The great reforms which, forty or fifty years ago, began in Germany, were the fruits of the recognition, one might almost say the discovery, that a certain portion of the so-called insane are curable. Almost everything further which has taken place in Germany pertaining to the public care of the insane is connected with this fact as a foundation. The erection of institutions for care and cure (*Heil und Pflege Anstalten*), the combination of these, the question of their eventual separation or re-combination, with attention to the just distribution of the means and mode of provision for the so-called curable and incurable insane, occupy, especially at present, all who are anywhere interested in the question of erecting new asylums. And yet we must admit that this idea of curability and incurability has not, in the light of experience, sufficient value to be chosen as the principle for the separation of establishments. The criterion of curability, so far as it may serve for admission into the asylums, is in a

high degree doubtful. In the asylum itself, a just judgment may indeed be formed, though very often too late, by the experts. A principal criterion of curability, upon which extraordinary stress is often laid—the short duration of the disease—is, in the general range of applicability given to it, completely deceptive, and can only, as a single glance at the paralytics will show, give rise to hopes utterly opposed to experience. It is applicable to only a rather limited class of patients, but for these it is very appropriate. The idea of cure and curability is too often, and with too little discrimination, made use of in psychiatry. Complete cures are not so extraordinarily frequent. Indeed, they are possible in only a rather limited class of patients. Practice has always broken through the theories according to which one class of institutions, whether lying apart or within the same enclosure, should have, the one curable and the other incurable patients. It is a “public secret” that the so-called purely curative establishments receive many more incurable than curable individuals. I am not acquainted with a single German curative establishment which really, and *de facto*, excludes those most incurable of all—the paralytics. Thus the distinction between curability and incurability rests scientifically upon a weak foundation, and is practically recognised as an official fiction. It cannot, therefore, be a sound principle for the separation or collecting of patients in special establishments. And yet it must not be supposed that only one mode of public provision is suitable for all the so infinitely various conditions which are commonly called mental diseases, and which may still be so called, or that for so manifold and heterogeneous requirements one and the same kind of institutions could serve. On the contrary, according to my view, we must go further than hitherto in the endeavour to furnish the several principal kinds, and to supply the necessary requirements and appliances specially suited to them. And I believe that in stating the requirements of actual practice the following proposition must occupy the leading place.

A proper public provision for the so-called mentally diseased requires two principal systems of treatment, or, if you will, two principal kinds of establishments, which must for this reason be kept separate; they should have quite different situations, arrangements, and organisation; the one intended for a merely transitory, the other for a long, residence of the patients. The working arrangements for these two objects are quite different, much more so than those of establish-

ments for cure and care have hitherto differed. For the purpose of a long residence, those special institutions would be suitable which are generally understood when one speaks of modern asylums. The principle of separation, however, is itself a purely practical necessity that may be as easily recognised as carried into effect.

Of those suffering from nervous diseases, who are brought to asylums as so-called insane, there are comparatively few for whom such accommodation is desired merely on account of their insanity. The greater number are so treated much rather from the disease having reached that stage when disturbances, annoyances, and deplorable actions, injurious to the patients and others, have already occurred, or are immediately to be feared.

Hundreds of persons who suffer from these diseases, though not to the same degree and with the same symptoms, are placed in other ordinary hospitals, or under medical treatment at home, or go at large about the world. It is a mere matter of experience that this high degree and these disturbing and lamentable kinds of symptoms do not last long in the majority of cases—that the intense degree of depression or excitement which indicates the necessity of placing them in the asylum, disappears after some time. A very short period,—a few weeks, or even a few days,—frequently suffices to restore the patients to the condition in which they had been for years before the appearance of the transitory exacerbation, which was perhaps due to external causes. Every alienist knows that one is not warranted by this in discharging such individuals so very hurriedly. But a large number require only temporary treatment and care, for which the elaborate apparatus considered necessary for the modern asylum and its belongings are quite unnecessary.

It is only after the active excitement or the depression on account of which patients are generally received has somewhat subsided, or remained for a time unchanged, that the particular nature of the affection is usually recognised in the asylum—that it becomes apparent whether one has to do, for instance, with a pure mania or melancholia, or with these forms in a previously weak-minded person, or whether there is a simple melancholia or something rather of the “circular” character. Frequently it is only then that one ascertains—that is to say, by objective investigation—whether the case is acute or quite chronic; even for the recognition of paralysis a prolonged observation is often necessary, until after the

first excitement has passed off. It is then that one is first in a position to make a prognosis. After some further time it may be seen whether the course of the case will, on the whole, prove acute or chronic. At length it becomes evident whether the individual is to be discharged recovered, or, as it is called, relieved; or whether he may be provided for as an uncured case in any condition of private life; or whether, on account of the anticipated permanent duration of the mental derangement, or not for this reason alone, but more frequently because of the burdensome and adverse nature of his circumstances, he will come to be permanently, or for a long period, under public care as a chronic lunatic.

Among all the so-called insane, the principal classes of whom I have elsewhere attempted to sketch briefly—the constitutional forms, the local diseases of a paralytic character, accidental cerebral lesions of all kinds, with marked psychical symptoms—among all these, cases are to be met with, which only require a temporary residence in an establishment, though sometimes indeed frequently repeated. Among all these are also cases enough, (not excepting even paralytics whose general circumstances are good) who may be again transferred to ordinary life, though not perfectly recovered. Among all these are to be found chronic and so-called uncured or incurable cases, for whom a special permanent residence is necessary, which must be established to suit their requirements and the requirements of civil society in regard to them. But generally this becomes evident for the first time, as has been remarked, when their acute symptoms have disappeared; and patients do not require during that period such peculiar arrangements, and, indeed, ought not to have them. Who can gainsay this statement?

The requirements which are necessary for persons labouring under acute symptoms may be shortly described. (I remark, however, expressly that I understand by acute conditions not merely recent cases, or curable forms—I include much more particularly conditions of exacerbation in quite chronic forms, as well as the numerous cases which have been discharged from asylums as “cured,” and which I regard as analogous to hysterical cases in which the convulsive attacks are absent for long periods.)

First of all, every large town ought to have in its immediate neighbourhood a suitable place for the reception and treatment of acute cases, and admission to it must be facilitated in every possible way; the inconvenience and disturb-

ance brought upon the families of the lower and middle classes by acute conditions—such as intense melancholia, attempts at suicide, maniacal, alcoholic, erotic, and such like excitements—demand instant relief; and for many cases, such as those of accidental lesions of the brain, the curability or incurability may altogether depend on a few days earlier or later removal from home.

Admission must be facilitated as much as possible, by making it in many cases gratis, and by establishing low rates of board in others. All public institutions should be for the poor, and not for the rich; but among those we ought not to include merely the lower classes of the people. There exists in Germany, perhaps, more than in other countries, that class of the population who, possessed of good education, and carefully educated minds, are without further means than the regular interest of their only capital—their mental faculties, and whose income ceases when they fall ill. For these accommodation in private asylums is therefore generally unattainable. For the benefit of that important and interesting portion of the population which is congregated in the large towns—the less opulent of the learned, artists, doctors, officials, literary and commercial men, for wives, daughters, and widows, with culture but without means—the admission into these public institutions must be facilitated, and the internal arrangements placed upon a footing of respectability.

None of the costly and extensive mechanism and arrangements which are found necessary for the “modern asylum,” would be required in a house intended merely for temporary residents. Extensive ground would be inadmissible on account of its enormous price in the immediate neighbourhood of a large town. And of what advantage would it be? Field and garden work could not be carried on with the floating population of the establishment. A small, pleasant, and shady garden divided for the sexes is easily obtained in the neighbourhood of a large town; and abundance of fresh air can be obtained by the use of large verandahs. No workshops: it is well known by this time that they are only required in the asylums for incurables (*Pflege-Anstalten*). No church, but a pleasant room for prayers: no large dining halls, play-rooms, gymnastic halls, skittle-alleys, rooms for large *réunions*, for theatricals (!) &c., which are all useless in the acute conditions, and unnecessary during the comparatively short period of convalescence or tranquillity. On the other hand, there should be a quiet site, as far as possible, in

a pleasant neighbourhood, remote from the traffic and turmoil of the town, but without affecting secrecy. These requirements—tranquillity and protection from the tumult of a great city—are most difficult to obtain completely, but they must be had, and their acquisition would justify a considerable outlay. Of course, any idea of rural retirement is completely out of the question for this kind of establishment. In exceptional cases, it is possible even within a city—not in the centre, indeed, but in the suburbs—to obtain a quiet, pleasant place protected from prying intrusion, and satisfactory in all the principal requirements. This is, of course, much better than to build at the distance of a mile outside the gates. I am aware that this proposition will only encounter opposition among contemporary alienists; but I declare what, from experience and mature consideration, I know to be true.

The medical staff of these institutions must be comparatively large, and well versed in science—the service, with so many acute cases, being laborious, and the responsibility considerable. It is, however, quite unnecessary, and for this kind of establishment even disadvantageous, that the chief physician should reside in the house. Though this might have some advantages, the erection of a separate house for the medical director, with its offices, garden, &c., would complicate the whole thing, and in the immediate neighbourhood of a large town would often be impossible. It would be quite sufficient if the chief physician was called upon to visit the establishment daily, and spend a considerable time there, to visit urgent cases again in the evening, and to take the responsibility of the whole management. Two or three able junior alienists, and a steward morally and intellectually qualified for the requirements of such an establishment, should live in the house. Capable male and female head attendants are, of course, taken for granted.

It would be highly desirable if, upon each intimation of a case for admission, it were the duty of an assistant physician of the establishment to visit the patient in his dwelling as soon as possible, so as to ascertain the state of affairs, the urgency of admission, and the actual suitability of the case. By this means would also be obtained the decided advantage that the physician would himself see the condition of the patient previous to admission, could consult with the relatives upon the history of the case, and could advise them as to the proper arrangements for the transport of the patient to his place of destination.

These establishments could and should be small; according to the size of the town, 60, 80, or 150 beds would be sufficient. The change of residents should be comparatively frequent. None ought to remain more than a certain time, at most about a year, or in very peculiar cases a year and a half. The acute conditions do not often last long, though some so called protracted cases, and cases of simple mania among females, may be an exception. They pass on to recovery, tranquillity, or death, or to a sluggish, chronic, quiet condition. The real recoveries in asylums occur, in by far the larger proportion of cases, in the first six or nine months. Those considerable improvements—alleviations which permit the incurable patients to be restored to ordinary life—all occur within a similar period. Within the same period it may also be easily decided whether the condition or the circumstances of the patient require a prolonged treatment in an institution for chronic cases. According to my experience in the Royal Charité, not a few of the really recent acute cases may, without danger, be set at large again after two or three months. A chief point, however, is that the families should not be able to withdraw their patients without permission from the establishment, and that provision should be made for the easy discharge of the incurable. It is also absolutely necessary that the institution should be placed in immediate connection with establishments of another kind (*vide infra*); so that, according to efficient agreement, those cases which are no longer suitable may be at once disposed of. Without this provision, the establishments for acute cases would be subjected to the evils of over-crowding; they would lose their essential object and character, and become ordinary asylums. To the tranquillised patients, the neighbourhood of a large town presents the invaluable advantage that they are aware of the nearness of their family and friends, and thus one of the most important sources of mental ease, of composure, of self-reliance—hope of return to the old scenes is obtained; and frequent visits to their families, of course under medical regulation, can take place. Owing to this nearness, employment can often be obtained beyond the house, and thus we also obtain the great advantage that the condition of a tranquillised patient may be tested by a several days' sojourn at home; and as this would only be on leave, which might if necessary be stopped, supervision may be kept up for a longer period.

The requirements of treatment are the only rule for the internal arrangements of this asylum. They differ very

slightly from those of ordinary hospitals. No manner of luxury in architecture or in plan. Simplicity with comfort must be the first principle. Externally, the house need scarcely differ from a large private house—no little turrets and other such like superfluous ornamentation. Or it may consist of several smaller houses (*pavilions*) according to the site, but which are in no case to be united by halls and archways. The internal arrangements must be regulated by the circumstance that among the inmates of this house there would be a large number labouring under bodily diseases, with severe cerebral and nervous symptoms, with general disorders of nutrition, and with serious conditions of debility, and also that many cases which would be found here would be admitted in a state of great excitement. It is thus not too much, but perhaps rather too little, if 25 per cent. of the inmates are calculated as requiring continuous watching and attention day and night, and thus a special division *à surveillance continuée*, would be required. It would generally be necessary that each newly-admitted patient should spend at least some days in this division, until he became known. There would be thus for each sex a comparatively large division for observation, consisting of two pleasant and conveniently arranged rooms, a combination of infirmary and division *à surveillance continuée*. And besides, for certain patients confined to bed and requiring special quiet, several single rooms should be provided. The patient should not, on admission, have to traverse long halls and corridors, but should step immediately from the reception chamber—almost from the house door—into the division for observation. With this a bath and a toilet room, a simple empty seclusion room, and a padded room are connected, which thus form a complete and specially organised division, and, in large houses of this kind, may have a pavilion devoted to it. I need not say that I altogether repudiate the cell divisions of modern asylums, with their double corridors (!), their gloomy apartments, and peculiar odour. The psychiatry of refractory divisions is as little mine as that of the straight jacket. For the necessary short isolations, and sometimes also for the sojourn of a whole night, the two above-mentioned rooms will suffice.

This shortly described, and most important section of the house, must have the best and most trustworthy attendants, and can in no case receive too much medical supervision. The other divisions of the house are easier to organise; they

are intended for those not confined to bed, not excited, tranquil, and who have already got more into the ways of the house, for the comparatively numerous cases so frequently oscillating for a long period between acute and chronic conditions. They may consist of three rooms, each with its own appurtenances, and where possible, its own verandah, but not its special section of the garden, lying rather towards the exterior, and, according to circumstances, having small wings, or even special pavilions. An important requirement which distinguishes it from ordinary hospitals, consists in several pleasantly decorated, cheerful day-rooms and dining-rooms; and in a relatively large number of single bed-rooms, which are essential for the class of cultivated patients of which more special mention has been made. Roomy and pleasant bath rooms, furnished with all possible modifications of apparatus, form one very important portion of the house.

There is no reason why the house for this purpose, whose arrangements have been sketched in broad outline, should not be in close connection with another hospital already existing, or to be erected, of which I shall afterwards speak further. The establishments themselves may be called town asylums, because they are erected for the requirements and use of the town, and for its special behoof. Whether they should be built by the municipal authorities or by the state, depends altogether upon local circumstances, and upon how far it may be made available for another purpose—that of clinical teaching. Where a whole country is not larger than a large town, they will, of course, be State asylums, and should be handed over to the capital or the university of such country. Whether the use of the town asylum of one of the larger towns should be shared in by the surrounding rural communes, is not a question requiring either general or special comment.

With the erection of this kind of establishment there is connected another great need, and a new and mighty interest—that of psychiatric instruction. This can no longer be overlooked. Surely it is necessary that some place should be provided where those who are to advise families regarding the illnesses of their relations, and who are to enlighten the law in questions of doubtful mental conditions, should themselves be taught. Twenty-two years ago, in the preface to the first edition of my text book, I pointed out the necessity of regular psychiatric clinical instruction in the universities. Much has taken place since then, but we are still standing

only on the threshold of the matter. During the last two summers of my residence in Zurich, I carried on a psychiatric clinique, with the limited material supplied by the old asylum, attended by many zealous students, and with such unmistakable advantage, that I now look back with the greatest pleasure to the establishment of that little clinique.

Würzburg, Munich, and Erlangen had previously founded such cliniques. Berlin has for two years and a half possessed a clinique, with an arrangement which has introduced a completely new element into the instruction; this is the simultaneous clinical study of nervous and mental diseases, a method which has opened a new path to science, and has furnished a worthy example for all time, the significance of which I shall frequently recur to in these pages. Göttingen has also for two years possessed an excellent psychiatric clinique. But in the other German universities there has been nothing accomplished—at least, nothing but fruitless attempts, often given up without the slightest results; and it is high time to remove the matter from the stage of endless discussion into that of practical action.

In many places it has happened with this exactly as with family treatment, non-restraint, and so many other psychiatric improvements. The chief state authorities wished to introduce psychiatric instruction, but when it came to the technical execution, there appeared, invited or uninvited, opinions of men who may have been actuated by the best possible motives, but had not the slightest practical knowledge or experience of the question. One might have thought that the opinions of such persons in regard to psychiatric cliniques would not have had particular weight, as they had never in their lives devoted one hour to a psychiatric clinique—perhaps never attended one. Still they have been able by “ifs” and “buts,” hundreds of times and long ago confuted by experience, but persistently reproduced *ad nauseam*, by talking of the enormous difficulty of a psychiatric clinique; by the fear entertained of the enormous cost of magnificent clinical asylums; by the assertion, caught from the clouds, that clinical demonstration is injurious to the patients; by all this, added to the *vis inertiae* inherent in human affairs—they have still been able in many places to retard, and even to frustrate, a thing so good and so infinitely important to what seriously concerns the state.

I may be permitted to offer a practical opinion in this matter, and I consequently assert most distinctly—

That the carrying on of psychiatric clinics is a comparatively light task, if only actual specialists are allowed to attend, and nonsensical objections are not allowed to interfere, and if the necessary means are furnished. This last would require perhaps only the half of what, for example, is necessary for midwifery and gynecological establishments. Are these specialties so much more important than psychiatry?

That the advantage of psychiatric clinics is so great that the expense is by no means commensurate.

That at every university a considerable number would attend a well conducted psychiatric clinic, even without the slightest compulsion, but that the importance of the matter would at the commencement completely justify the regulation that attendance upon this clinic should be imperative

That as for any injury to the patients, which is still prated about, it is out of the question, in any rational or intelligent management of the subject. Among several hundred insane on whom I have lectured clinically, there has never arisen in a single case even the slightest harm; on the other hand, it has very often been observed that the impression made upon the patient by the demonstration was remarkably beneficial. Patients who, as a rule, exhibit little self-command, conduct themselves in the clinic in a very pleasing manner; restless patients not unfrequently appear more tranquil; patients whose impulses and ideas are at other times acting an incoherent comedy arrest it for a time; patients who have been sunk in speechlessness sometimes explain themselves in a remarkably clear and interesting manner. Those patients who are to a great extent in possession of their reason, and for the most part are aware of the instructive object of the demonstration, are by no means dissatisfied with it, and many seek even to render their assistance. It is unnecessary to state to members of my own profession that all this applies equally to the female and male sexes.

Thus, as regards the necessity and the ease of execution there can no longer be the slightest doubt, and the rich materials for observation which are now offered by the public asylums, but which year after year disappear without beneficial result, as regards instruction, will be at last opened up, and rendered useful for this end.

As regards the manner of carrying out the plan, and particularly as regards the relations between the psychiatric clinics and the other asylums, experiments would require to be made before uncertainties and doubts can be cleared

away. The few who would be able to make these experiments must learn how to engage in a new task, so as to discover what is right, unfettered and unconcerned about prevalent opinions, even though it may be necessary to renounce those which they themselves have hitherto cherished. It was thus with myself in regard to this question. I required a long time before I was quite clear as to the means of reaching most satisfactorily the object of psychiatric instruction, and until the pre-conceived ideas which I had obtained from the asylums and the prevalent views regarding provision for the insane, gradually gave place to other views dictated by wider experience. As only very few in Germany can have been in a position to arrive by a similar path at an independent point of view, I cannot reckon upon an immediate acquiescence in my ideas; but I may at least count upon a calm investigation of them. A very short time will suffice to exhibit by experiment their full value, and to make known the impracticable nature of contrary measures. I confine myself to laying down a few propositions.

1. The psychiatric clinique will never flourish as a general subject of instruction by means of compulsory measures, if the visit of the audience is made difficult by external circumstances. There must on the contrary be the greatest external facility for making the visits; time must especially be economised, and everything must be made as easy of access as possible.

All arrangements are, therefore, unsuitable by which the psychiatric clinique lies either at a distance from the town, or, in a large city, at a considerable distance from the other cliniques of the place. It is a highly essential point that it should rather be in their immediate neighbourhood. Even a distance of half a mile is an obstacle which may prejudice everything. By far the best arrangement is where the psychiatric clinique lies quite close to the others.

2. The psychiatric clinique must possess an abundant supply of acute cases. The future practitioner must be made acquainted especially with the diagnosis and treatment of these as they present themselves to him in family practice. It is only in acute cases that actual progress is to be observed, that the operation of advancing and retrograding processes, the commencement, the re-convalescence—an interesting group of other symptoms belonging to cerebral disease—and the results or non-results of therapeutics, are to be seen.

3. From the nature of the subject we know that where acute cases are numerous, admissions and removals are frequent.

On this account a good clinical asylum may be small; it does not require to accommodate more than from 100 to 120. It may even contain only 60 to 80 beds, where acute cases are abundant and where great care is taken to remove those who are no longer suitable. I lecture with an average number of 120 patients; and in the admissions for one year, which for instance in 1865 amounted to 430 so-called insane and 86 epileptics, or from 80 to 100 cases during the session, the most important diseases, such as paralysis, with numerous varieties in the symptoms, and a great proportion of the rarer forms, with manifold modifications, were represented. This, in connection with the accompanying course of psychiatry, completely suffices to introduce the students to such a knowledge of the subject as, for all practical purposes, can generally be given by University education.

4. It is not in the least to be feared that by this arrangement the chronic and incurable conditions,—the numberless *residua* of completed processes, cannot be demonstrated to the students in sufficient number and with sufficient fullness. It is matter of experience that in all establishments, and with every kind of arrangement, there gathers unavoidably quite a sufficient number of these cases. On the contrary, it is only to be dreaded that these *residua* may far outnumber the acute cases, and the greatest care must be taken, as in every other clinique, to effect their speedy removal after they have served the purposes of instruction.

5. The requirements of the clinical asylum, which have been already recounted, agree completely with those of the town asylum, and they also harmonise in their other requirements. They may be placed on the same ground as general clinical hospitals or in their immediate neighbourhood: they may even form a portion, though separate, of such an hospital. It is easy to make the unimportant exceptions to the general rules of administration and housekeeping which the special object of the division for the insane would require. If the town asylum in an University town be furnished with all those appliances which are required to make it a true scientific observatorium, and if there is added a lecture room, the town asylum, as we have described it, becomes the clinical asylum.

In this way, and in this way only, can clinical instruction in psychiatry be really satisfactorily provided for.

If the circumstances of the locality should make it quite impossible for an University to obtain a small asylum with a

large proportion of acute cases; but if it is at the same time possible, or required by urgent reasons, that in its immediate neighbourhood there should be a large asylum for incurables (Pflege-anstalt), such material would certainly be much less useful for instruction, but it would be always much better than nothing. It is only as such a *pis aller* that the idea of using a large asylum for incurables as the place of instruction can be justified. It would always be an objection to such an arrangement that these asylums ought to have a rural character, and on this account should be placed at a distance from towns, and thus the first of the essential requirements we have mentioned would not be complied with.

An incomplete arrangement is always better than none at all; it at least gives the teacher of psychiatry an opportunity of carrying on his work. Thus when there is an University in a country, and where there is only real necessity for one asylum, it should always be placed in the immediate neighbourhood of the University, and no heed should be given to the miserable recommendation to erect it rather in rural solitude. In the neighbourhood of our small Universities all conditions and circumstances are generally quite rural enough.

If, then, the clinical asylums, and even the town asylums may satisfactorily form portions of the larger hospitals, the proposition—which in contemporaneous German psychiatry finds much favour—that establishments for the insane must always be quite peculiar and special, so as to fulfil their functions, is already disposed of. This idea arose chiefly from the professional exclusiveness of psychiatry, and from a too general application of what was only adapted to one group of patients. If once the identity of the so-called mental diseases with the other cerebral and nervous diseases were recognised, one would see every day how in a large number of cases we determine quite arbitrarily, whether they are examples of mental or other nervous disease—whether they should be placed in the insane division, or in that division of the hospital which is devoted to nervous diseases. It is thus seen at once how this question is to be regarded. Opportunity may now be taken for a few words concerning the further question,—whether the insane might be received into ordinary hospitals, not merely temporarily and under urgent necessity, but also for the purpose of prolonged treatment.

This question is clearly settled as regards a certain class of the so-called insane and a certain class of hospitals.

Chronic, quite tranquil patients affected with sequelæ of disease, with simple imbecility, and especially with actual amentia,—simple mental invalids suffering from paralysis, convulsions and the like, and at the same time more or less confused, or incapable of thought,—the great proportion of demented epileptics, &c., can, of course, be associated with other bodily invalids, and are well suited for large hospitals. Whether these mentally infirm and incapable, these social and intellectual nobodies, should be united in one place with the merely bodily infirm, or whether they should each have special places, can only be determined by their number. No principle is involved, and the wants of both classes are the same. Certainly the insane and imbecile in such large hospitals ought not to be, as one often sees them, placed in the most remote corner of the building, clustered in damp, dismal courts, on whose walls the cats creep, where no tree and no flower gladden the gaze, and where the blue of heaven is scarcely to be seen between the sombre roofs. But let these unfortunates, according to the humane views of the period, pass their allotted days without luxury indeed, but as comfortably tended and provided for as the other inmates of these hospitals, abundantly supplied with light and air, and under continual medical superintendence. Religious societies may, with greatest advantage, take part in the care of this class of patients. But above everything, science must not lose sight of them, nor suffer to be lost the invaluable material which they offer for investigation and instruction. The continuous residence of the insane in general hospitals must, however, be confined to this class of persons. Those patients who, though still in bodily health and vigour, are unsettled, or affected with a slight degree of dementia, and particularly require work in the open air, are not happy in such places. These poor people often sit here for years completely idle, behind grated windows in cells, and exercise their unused bodily power in noise and mischief: they themselves feel as it were in hell, and they completely destroy the order and harmony of such a house.

A large part, therefore, of the so-called insane—both the acute, and many serious chronic and aged cases—can and ought to be best cared for in divisions of ordinary hospitals, or in establishments which do not require to have the character and the arrangements of modern asylums. Perhaps the modern asylums will thus generally become superfluous? No, the question has not come to that. There are a large

number of chronic * patients, or, more correctly, as viewed from the medical point of view, patients suffering from the remains of diseases frequently undergoing alternations of improvement and relapse—the so-called unsettled, slightly weak minded, or suffering from frequently recurring periodic or “circular” derangements, from moral insanity, &c., but in the enjoyment of more or less bodily health. For those patients peculiar arrangements must be organised, and these are for the most part best found in the present asylums. There are many among these persons who cannot be left at home with their own families when they have such; because their weakened intellects are no longer able to battle with the ordinary conditions of life, and because they often fall into excitement or confusion in the daily routine of existence. At home they are not understood and are unsuitably treated; they are exposed to abuse on account of their morbid manifestations, and they become more or less annoying and dangerous to their neighbourhood. Many of these individuals are still capable of making their life partly useful to others, and especially of applying their bodily powers to suitable employment, and also to some extent of enjoying life, but only on condition that they are placed in peculiar, simple conditions specially adapted to their circumstances. In such conditions we see a number of these persons who at home were not only completely incapable of work, but were otherwise quite unbearable, leading for many years lives which are satisfactory both to themselves and others, as tranquil, modest, and comparatively peaceable workmen. Their periodic excitements are easily checked and allayed by good treatment; their bodily health is preserved; mental wants have not become altogether foreign to them; in their manners and mode of speaking and acting they conduct themselves to a great extent according to the forms of healthy life. In short, there is still possible for them, though only in special circumstances, more or less of a human life; and those who take charge of them must obtain for them as much of this life as possible, if they wish their humanity to be more than a name.

A human being, even when insane, is no mere living machine whose functions are accomplished satisfactorily by eating, and drinking, and by bare mechanical labour—he

* Chronic patients are not necessarily incurable. What is understood by “cure” may take place in many of them after several years. The beneficial influence of prolonged and completely rural life is highly valuable in such cases.

has senses, he has sympathies, he has a heart. It is true that in many who are mentally deranged the spirit is sunk in darkness, the emotions quenched, and the will broken; but among others these faculties still exist. Even though they be mere sparks glimmering among the ashes, they are costly sparks! The powers of soul in human nature, the healthy emotions, must be preserved and cherished in these patients, and must be brought into action and set to work. The more that any kind of treatment succeeds with this kind of patient the better; the less it succeeds, of course it is so much the worse. I am well aware that this does not depend only on the kind of treatment, but quite as much upon its actual carrying out in each individual case. An intrinsically bad mode of treatment may, by the spirit of humanity, common sense, and gentleness, on the part of the person who carries it out, fulfil its purpose very satisfactorily, particularly when these characteristics are joined with the scientific spirit, and with a proper desire for the discovery of truth; whilst, with a system conceived in the most humane spirit, a contrary mode of putting it in practice will produce misery to those subjected to it. But, again, this compensation for bad principles by good practice has its limits. The persons change, and we must endeavour in all arrangements to attain what is best, quite independent of the change of individuals.

For the insane, with whom we have now to do, provision must be made for a long residence of a number of years, often of half a lifetime. During the whole time that they are provided for, their existence must, as I have just stated, be made, as far as possible, useful to others and especially to the civil community which provides for them. Their bodily health must be preserved; every good tendency of the spirit and mind must be cherished; moderate enjoyment of life must be afforded; and under all circumstances they must have every possible protection from further degradation.

Modern psychiatry has attempted to reach these ends by means of barracking (*Casernirung*). I use the word in no bad sense. In large palatial or monastic piles, which are generally much admired by the public (though at present it is child's play to every good architect to build such after the excellent English and Dutch models), hundreds of such patients may be found in a single building. The arrangements of these asylums are the result of the most careful consideration, and are carried out with refinement, so as to

provide light, air, attendance, work, and recreation for the patients. The service in these institutions is in general exceedingly good, and the continual exertions of the medical officers are always producing further improvements in the details of the arrangements. The foolish excess of luxury which is to be found in some places, but also here and there the sad contrast between splendid halls and straw beds, between extensive parks and insufficient food, &c., are not to be considered as faults in the system itself. These edifices may be pointed to with pride as beautiful monuments of the humanity of the century.

From an economical point of view the subject assumes another complexion. If in public charity one poor man receives too much, it must be at the expense of some other who receives too little. The object is to maintain as many as possible, and to maintain them as well and as cheaply as possible; but whether this is attained by the present system may well be doubted. For the new buildings which are generally demanded by modern psychiatry, about £150 per head is required; and even this sum is often exceeded. A new German asylum, intended for 400 patients, has cost £90,000. Foreign countries are not a whit behind. The three new Paris asylums of St. Anne, Ville-Evrard, and Vacluse, for 1800 patients, will, in all, cost twenty-two millions of francs, or £488 per head; and such instances might easily be multiplied. This is fortunately not the general scale; but, if it be remembered that during the last twenty years about four thousand beds have had to be provided in German asylums, and that in the whole of Europe there are probably about three hundred thousand insane in asylums, for whom good asylums must ultimately be provided; and if it be considered that in addition to the cost of erection and maintenance of the buildings, the board of the pauper inmates has to be provided, it will be admitted that the expenses are out of all proportion to those of any other department of public benevolence.

If I considered that the money was in all respects well spent, I should feel bound to agree to the expense; but it is my opinion that for many who receive this costly treatment it is unnecessary, and for many others it is not even advantageous. Who can fail to recognise the excellent intentions of the men who introduced these arrangements, and whose ideas have hitherto been followed? I myself was a few years since unacquainted with any other and better plan;

and indeed I believe that it was a necessary step towards further progress. But I believe also that this system of treating the chronic insane who are still capable of a degree of rational existence, by accumulating them all in barracks, has lasted out its time, and has no future before it. For a considerable proportion of the patients who have hitherto been thus provided for a better system may now be resorted to.

It is a misfortune that in affairs connected with insanity the good should suffer with the bad. Because a certain number of the chronic patients, of whom we are now speaking, are no longer capable of living like the sane, or in society with them, a great number are also secluded who are quite fit for it; and the idea that each class ought to be treated according to its own characteristics, seems in many places not to be apprehended. Certain foolish propositions are laid down which are supposed to apply to the insane generally, and arrangements are made in accordance with these propositions. Because a certain number of the insane may be dangerous to their neighbours, a large number are treated as if they were dangerous; because a certain number can no longer enjoy liberty, the deprivation of liberty is made a general rule. I do not mean that insane persons should in any case have the same freedom given to them as the sane; but I think that such freedom should be permitted to them as is compatible with the safety and welfare of civil society and the peculiar circumstances of the patient. I think, therefore, that to very many of them much more of a kind of regulated freedom *can* be given, and *must* be given, than at present in Germany people are generally inclined to grant, or actually do grant. The reason of this "*must*" is not only that it is not right to limit the freedom of a sick person more than is strictly necessary, but especially because the healthy emotions, whose preservation and exercise in comparatively rational life are a principal requirement in these chronic cases, degenerate and disappear after years of barrack discipline, giving place to a mechanical kind of life. This is seen in hundreds of such patients in the asylums for incurables, where they have become assimilated in character to other patients, because these healthy emotions can only flourish in conditions of comparative freedom. We are indebted to our learned *confrère* Roller for the idea which, in 1861, I expressed in the last page of my book, that many insane can be entrusted with much more freedom than is generally believed. Since then I have learned, in more

than one place, to recognise by my own observation the truth of this view, and I rejoice now to give in my adhesion to it. But if they *may* be entrusted with it, they *must* be.

But by no means all. There are a number of persons in whose cases confinement to a certain space, and a continuous residence among their fellow sufferers, cannot be avoided; and we must acknowledge that they derive great benefit from continual, immediate supervision, and a strictly mechanical mode of life. They are all the dangerous patients, all those who are very excited, chronically turbulent, and no longer of use to the community. All such except when they are suitable for infirmaries, require confinement in the regular asylums. As to who the so-called dangerous patients are, enough has been already said. According to the opinion which experience has led me to form, the principal consideration in regard to this is the circumstances in which the patient is placed. If these are suitable to his condition, if the treatment is just and good, the overwhelming majority of patients are completely harmless; while in unsuitable conditions, or subjected to annoyances or bad treatment, almost everyone may at some time be dangerous. This much is certain that, twenty years ago, the freedom which is now granted with the greatest advantage to a large number of patients in the agricultural colonies, would have been considered highly dangerous. And in Gheel, where there is a free insane population of more than one thousand patients, many years have passed without the occurrence of any dangerous conduct, or, at least, with no more than might be expected from the same number of sane people.* It is also certain that isolated dangerous actions, like isolated misfortunes in the world generally, can, by no possible amount of caution, be uniformly avoided, even if every patient were bound and imprisoned. It is also on the other hand undeniable that there are special patients who may occasionally be very dangerous, with any treatment, and in any circumstances. Those especially labouring under certain epileptic hallucinations, and some suffering from particular forms of moral insanity, are of this class. In these cases, the dictates of prudence require that they should be treated as dangerous, though really there may be no more than a justifiable suspicion of their being so.

* It is not to be objected that by Article 27 of the Bye-Laws of 1st May, 1851, no dangerous patient can be admitted into Gheel. This article cannot be practically carried out, and is necessarily broken through in many cases. How can the insane be so generally dangerous as many believe, if over one thousand who are not dangerous are brought together with facility?

Besides those who on these general grounds require continuous detention in a "close" asylum, the following classes must severally be included:—Those who have previously conducted themselves in a dangerous manner,* or whose menaces and behaviour make it seriously suspected that they contemplate such conduct; persons with frequent suicidal impulse—with morbid inclination to alchoholic or erotic excesses, or to theft; persons labouring under important hallucinations which make them completely mistake the relations of the surrounding world; and persons who make use of every freedom to attempt to escape, to vagabondise, to make themselves general nuisances, and to cause annoyance by importuning the public authorities, and by disturbances; persons who frequently fall into conditions of deep misery, into a restless, excited, or angry condition; especially a great number of epileptics, even of the better class, who so often exhibit the last-named condition, and who, on account of simultaneous mental symptoms of proportionate degree, are objectionable in civil society. The close asylums have also further to accommodate temporarily, or for longer periods, those who require prolonged medical treatment, such as baths, &c., on account of some bodily affection; or who require special care, as being bedridden, but who are not in a condition to be received into other hospitals. It is evident that there is no want of patients for whom residence in a close asylum is acknowledged to be beneficial and quite necessary, and that there is no question among reasonable persons as to the destruction of asylums, but that much rather, when such close asylums do not exist, they must be demanded as of the most urgent necessity.

There is, however, another kind of chronic insane, who are fit for the above-mentioned comparative freedom, and to whom it must, therefore, be granted. These are the better kind who ought not to suffer among the worse. If one goes through any asylum and examines it from an unprejudiced and psychiatric point of view, a number of persons will be found who can never return home and resume that position in life, which has often been deprived by the disease of its most valuable associations. They would generally be unable to maintain their ground or to subsist in the busy world of healthy life, but do not, on that account, require

* This also *cum grano salis*. I do not believe that a man who in his twentieth year committed manslaughter while suffering from a paroxysm of epileptic mania, should pass his whole future life—perhaps fifty years—in an asylum. Civil society would, in such a case, pay very dear for exaggerated caution.

life-long seclusion. They are in the asylum, though everyone, and, perhaps, most of all the superintendent, feels that they are not exactly the suitable inmates of such an institution, and that they are too good to spend their lives among imbeciles, the thoroughly demented, hallucinants and epileptics. They remain there for a long series of years, merely because there is nowhere else to send them. They are harmless, quiet, fit for work, comparatively intelligent, useful in circumstances to which they are accustomed, tranquil and contented, now and then, perhaps, noisy, but quite inoffensive. Their emotions decay in the uniformity and monotony of the establishment, and tend, ever more and more, towards stupidity, as a necessity of their seclusion in the asylum. There is much good to be accomplished by public benevolence for this unfortunate class of patients. It has to determine on the means of placing these persons in suitable circumstances. It has to bring them out of their rigid confinement, and to treat them in a more open manner, of which we are about to give a general sketch. By means of this, not only will those persons be relieved from the misfortune and discomfort of the deprivation of liberty, but the close asylums will also be relieved from the no longer bearable overcrowding with inmates, for whom they are not in all cases necessary. Important administrative considerations will thus receive due attention. The shoemaker's widow, N. N., for instance, has become weak-minded. She declares herself to be a princess, and goes to the palace. She writes nonsensical letters, and is made fun of by the street boys. In short, she is unfit for ordinary life. At a cost of £150, a place has been provided for her in a palace, with high, well-ventilated halls, where she will have butcher's meat every day, where everything goes like clock-work, and where she will feel very uncomfortable. But in a humble room in a village, with simple, honest people, among her equals, she would have found everything that she needed. She would have done domestic work, such as she had been accustomed all her life to. She would have looked after the children, and helped her neighbours, and, in short, would have found a comparatively comfortable life in freedom, and with congenial employment. The same is applicable to numberless other similarly demented, periodically maniacal, &c., &c.

According to my view the more open form of treatment which is required by persons of this kind must always be in connection with a close asylum. For the long, continuous

accommodation of those chronic patients therefore, we require arrangements which shall consist of (1.) a close asylum, and (2.) the establishment of one or more open systems of treatment attached to the establishment. These two parts form a whole, which represents the asylum for chronic patients developed according to modern requirements. Thus the asylum is not to be destroyed or thrust aside, but further developed by the addition of important new departments which will elevate and complete its organisation.

This asylum is altogether different from the asylum for acute cases, from the *town* and *clinical asylums*. It should be situated in the country, and bear an essentially rural character. All that has been brought forward by certain alienists against the placing of asylums in the neighbourhood of large towns applies to this class of asylums. It is not necessary, however, that it should be absolute rural banishment. If it should happen that suitable ground can be obtained a few miles from a large town, there can be no objection; but in any case a country life must be provided. I, therefore, call them *rural asylums*. Country avocations must form a characteristic part of their daily life.

The extent of ground must thus be considerable—from forty to eighty acres, according to the number of the patients. A greater extent will only be necessary in rare and peculiar cases—such as Clermont.

The number of patients must also be considerable, otherwise the requisite number of workers will not be obtained. The economical management is much easier with a large number. There is no difficulty in the medical care of this class of patients who, for many years, will require no medical treatment; 400, 500, or even in particular circumstances 600 inmates, may quite well be accommodated. Numbers which I have already declared quite inadmissible for the merely “close” asylum may here, with a more open system, be well and usefully associated. Both sexes should always live in the same establishment, as in ordinary life they inhabit the same house. Asylums are neither monasteries nor nunneries, and the division of labour is better carried out when shared by both sexes.

All arrangements must be made with a view to long sojourns of the patients—for years and decades. Well organised, diversified work is one of the bases for everything further. For idleness is to the robust insane, as well as to the sane, the most mind-destroying influence that exists.

Abundant provision must be made for farm and garden labour, for workshops, for the right apportionment of work to all seasons of the year, and for all kinds of inmates. All must work. The infirm, who are no longer fit for work, do not belong to this asylum, but to the hospital. The work must serve to repay a certain portion of the cost. Thus those, who during their stay in the asylum fall into deep dementia, into paralysis, or into conditions of completely incurable incapacity for work, should be transferred to the hospital, when it can be effected without inhumanity.

But it must not on this account become a "workhouse," and the close part of the asylum should never become a prison. The establishment must also contain what may correspond to a portion of that life for which in its entirety the inmates are no longer fit; for the asylum is to them a second world. It will consequently be necessary that the situation should be beautiful, or at least pleasant. It must have the indispensable benefit of a shady park, and provision for all kinds of recreation and amusement for the patients which is not of too expensive a character. But especially—and this cannot be sufficiently insisted on—the close part of the asylum must in all its arrangements be cheerful, comfortable, and in good taste, without being luxurious. The patients will be benefited in the best part of their nature—their æsthetic and moral feelings—if their life is not made too bald, nor reduced to a bare necessity. It must not be a miserable or even a joyless reality, but pleasant and elegant though simple. This may be obtained at little expense, and with the best result as regards the benefit and comfort of the patients. In Germany there is much to be learnt in this respect from the English asylums, where this maxim has long been officially accepted.* The newer English asylums may also, in their other internal arrangements, be generally followed as models of the close department. This is especially the case in regard to their practical comfort, but not in their luxury. Refractory divisions, long rows of cells, and such like, are here to be altogether done away with. On the other hand a portion of the ground floor may with the greatest advantage consist merely of small single day-rooms, and numerous single bed-rooms are absolutely indispensable. Splendid façades, halls, and colonnaded corridors, are pure absurdities for the objects of these institutions. In

* Compare the excellent remarks on this point in the English Commissioners' Report, XVII., 1862, p. 41

the principal buildings the barrack style is to be avoided as much as possible, and on a suitable site an irregular arrangement of villa-like buildings is much to be recommended.

The rural asylums will also differ in an important and seemingly paradoxical manner from the town and clinical asylums. The admission into these last ought to be facilitated as much as possible, but into the others it ought to be made difficult. Every case for which their arrangements are unsuitable must be rigorously removed to other places; and especial care must be taken to exclude from country asylums all who can be cared for in infirmaries, or who can be sufficiently provided for at home.* A pressure of applications will, from the nature of things, fall urgently on these asylums, and without this strictness they will soon be found to be permanently overcrowded, the system destroyed, and a large number of those excluded who are really requiring admission.

The models which are to be found for the second essential element of the asylum, the more open form of treatment, are much rarer than for the close system—indeed, to many persons the thing appears impracticable. They talk of novelties which cannot be investigated, and of dangerous experiments; but all the novelties have been ere now introduced, and the experiments have been already made. Of course it is necessary that one should go to the localities and learn to recognise the facts; and he who from the recesses of his chamber tries to settle these practical questions, will find his opinions disregarded, however loudly they may be proclaimed.

There are at present in operation two principal modes of carrying on the “open” system, which are further susceptible of manifold modifications. They are not opposed to one another as alternatives, but run, as it were, in parallel lines, and allow of easy and advantageous combination with one another, according as circumstances may dictate.

(1). The *agricultural colony* gives to a certain class of patients quite a different mode of life from that of the close section of the establishment. It opens up to them a much wider portion of the world, with freer movement and more active employment of the faculties. On the farm of Fitz James, which was instituted in 1847, in its important economical results, in the order, the activity, and the well being which

* For instance, incoherent (*verrückte*), or slightly imbecile persons, who appear quite tranquil and able to take care of themselves for eleven months of the year, and are excited for one month, belong, during the latter period, to the clinical or town asylum; for the rest of the time they should be at home.

prevails there, we have had up to the present time the most excellent example and model of this form of provision; indeed, all authorities now unite in recognising this institution. The idea itself has so gained ground that it is in operation in many places in our neighbourhood. The communal authorities of the commune of Lüttich, for instance, after many years of hesitation as to the best system, unanimously determined last year to establish a large institution of the nature of an agricultural colony (farm asylum). In the discussion as to whether the farm ought to be in immediate connection with the close asylum, or placed at a distance from it, I am, as a rule, in favour of the latter; but I admit that local circumstances may decide in favour of the former. The following considerations are of more importance:—

The agricultural colony is, as has been said, only suitable for large asylums. It can only be properly organised where it is on a considerable scale. The labour of the insane is only equal to one fifth of that of the sane, so that 100 patients can be regarded as equivalent to 20 healthy field labourers. Even where in the general rules for admission to the asylum all infirm persons are rigidly excluded, there will still be only about one in every five inmates found suitable for field labour. It will consequently be necessary, in order to obtain equal to the work of 20 healthy persons, that the whole asylum should accommodate about 500. Experience has shown most satisfactorily at Fitz James that, contrary to the objections of theorists, many who have been previously unaccustomed to country avocations engage in them with pleasure and advantage. But the so-called cultivated people, those who certainly have read enormously (*schrecklich viel gelesen*) but who have never made use of their capabilities, are virtually shut out from the atmosphere of health, labour, sociability, and freedom, which the agricultural colony affords to its inhabitants, and which would be especially beneficial to them. When there is a proposal to erect a rural asylum for a province containing one or more large towns, it would be well to ascertain whether the towns furnish good material for an agricultural colony; even though they do not, still it would be advisable that a commencement on a small scale should be made if the circumstances are otherwise favourable.

But, as Mundy has justly observed, in an agricultural colony the insane live constantly in the society of other insane and of attendants, in an artificial freedom, which for many is

much too confining a condition for their independent activity and mental capacity. The colony is also, from its very nature, only intended for those in good bodily health; so that a large number of patients who would otherwise be suitable recipients of benefits of this open kind of treatment are prevented from sharing in them. There are also influences still more beneficial than those of the colony, and these are to be found in—

(2.) *The family system.* This is specially suitable, and the only proper provision, for a certain proportion of the insane. It furnishes what the most splendid and best conducted institutions in the world can never furnish—a life entirely among the sane, a return from an artificial and monotonous existence to what is natural and social, to the blessings of family life. Quiet and thoroughly inoffensive patients, still susceptible of impressions which are obtained there, not yet alienated from the world, still fit for the ordinary conditions of healthy existence, and generally to be met with more amongst females than males, are peculiarly suited for this kind of open treatment, and more urgently require it. It is with them that the family system is to be commenced; by and bye it will extend itself to all those who are not comprehended in the categories mentioned at page 22, which form the permanent populations of the close asylums. The family system can be carried out under two forms.

(a.) A certain number of the patients may be given as boarders to the country people and artisans of a village or little town in the neighbourhood of the rural asylum. The families must be honest and respectable, and only one, or at most two, patients placed with each. The whole provision, care, and employment of the patients, their food, their bed, &c., are continually to be superintended from, but not furnished by, the asylum. An inspector or an assistant physician ought to visit all the dwellings either every day or every second day. At first the patients might come twice a week to spend half a day in the asylum until patient and guardian become thoroughly acquainted with one another. The patients share the occupations, the meals, and in short the life of the family. They must therefore be placed, as far as possible, with persons of similar position in life, degree of culture, and avocation. The tailor goes, if possible, to a tailor; the field labourer to a field labourer, &c. The distribution of the several patients, especially in this mode of treatment, their allocation to particular families, is altogether

a matter for the asylum authorities, and in no case for the relatives of the patients. The board will be calculated with reference to a moderate estimate of the labour done by the patient for the family of the guardian. As to further details of the practical administration, it is unnecessary that we should consider them at present.

Is this system of treatment practicable? It has been long in operation in Gheel with over a thousand patients, and in Scotland with several hundreds, and in the most satisfactory manner. In the Devonshire County Asylum* an experiment on a small scale, by Bucknill, has been completely successful. What has been done there can also be done elsewhere. But the treatment of the patients? Can that be as good as in the close establishment, with its airy dormitories, its gardens, its water-works, its three meals a day, with butcher's meat cooked in the newest and most approved style? To this there is only one reply. Ask a patient under family treatment who has formerly been an inmate of a good close asylum whether he would like to go back to it. The well-being of the individual, his real happiness, depends only to a small extent upon such things, but greatly upon emotional impressions. He who is not suitable for a close establishment, and for whom it is not necessary, regards it as a bondage, for the flesh-pots of which he never longs; and—he is right.

(*b.*) In those places, however, where the suitable conditions of carrying out this second principal element of asylums—the boarding out with families—are non-existent, they must be brought into existence. All that is necessary is that a portion of the asylum, instead of forming part of the central building, should be placed at a distance of half-a-mile, or a mile from it. It would consist of a number of rural dwellings, not arranged according to any rigid plan, nor all of one pattern, but distributed according to the lie of the ground, and each having its own garden, however small. At first there might be a few—six to ten—such detached houses, inhabited by the families of attendants; afterwards if, as would be the certain result of good and successful management, to these original attendants' families others, such as artisans' families, were allowed to annex themselves, there would be

* It was there that I first saw it. I shall rejoice all my life over that evening, when my theoretical notions, in presence of these small beginnings, first gave way to the force of facts. "Yes, it is not only possible, but actual!" I could have exclaimed. The errors of years were destroyed in a single hour. And even if the thing were again given up in that place, and renounced by those who had instituted it, it has been working, and it will work for all time.

still more of such little dwellings erected, and gradually a colony would be developed. Each family should have entrusted to them two, or at most four patients of the oft-mentioned class; and what applied to the regulation of the former kind of family treatment would be equally applicable for this, the daily visitation of the patients by the asylum authorities, continual and intimate intercourse between the colony and the close part of the asylum, &c. Every newly admitted patient would first pass a short period for observation in the central establishment; and whenever acute diseases, or conditions of violent excitement appeared in the colony, the patients affected would be temporarily transferred to the central building. The economical management, into the details of which we cannot go here, depends essentially on the principle that the families who inhabit the rural houses shall stand to the asylum in the relation of attendants, that the work of the patients shall be given over to them and accounted for by them,* and that according to its amount the remuneration for their attendance shall be calculated. On this principle all further arrangements must proceed.

While in the first form of the family treatment in an already existing village, the construction of buildings for all this part of the asylum costs nothing, the buildings and arrangements for the second will be much less expensive than for a close asylum. In the present day great progress has been made in the construction of sufficient and inexpensive dwellings for the lower classes; many ideas have been contributed to the subject, and the greatest names of the century have taken part in the work, and more rapid and more important progress is still to be expected. The workman's houses of four apartments, such as exist in the cité ouvrière at Mülhausen, which could accommodate two patients, cost at most £120; and the cost of construction, if four patients were accommodated in a similar but larger dwelling, would not amount to more than £45 per head,—a great contrast to the £150 for new buildings in vogue; but a contrast which derives its true significance from providing for the class of patients in question, not only in cheaper, but also in a better manner.

The last-mentioned plan is not new; its leading idea has been previously stated, and recommended by Mundy.

* In Gheel the same principle essentially exists; but there is only a general valuation. In less extensive conditions, such as those immediately under consideration, a more exact calculation might be made.

The plans for it have been worked out by him in detail, and given to the public; but the idea would never have been possible had it not been for the great experiment which Gheel presents to us. At this incomparable village we have a model which we must not attempt mechanically to copy, but which shows to every one who desires not only the physical, but also the moral good of the insane, the path which must be followed. My plan, however, differs essentially from what exists at Gheel, and in some particulars, perhaps, to its disadvantage; but a complete copy and reproduction of Gheel in another locality is once for all simply impossible, and other requirements demand to be complied with. According to my plan the great proportion of the acute cases would be absorbed by the clinical and city asylums; the insane sick and infirm would fall to the lot of the hospitals; and the chronic robust would be left for the rural asylums; but among them would be many for whom the close establishment would be necessary, and who would be excluded by the regulations of Gheel (suicides, homicides, erotics, &c.). The close establishment is always, to my mind, the centre of the whole; the colony for family treatment, which is, in my opinion, just as necessary a part of the asylum, must, in the present state of matters, be gradually developed—at first as an adjunct to a preponderating centre, until by its results it is recognised as equally important. It is probable that in most places it will ultimately become the most important and considerable part of the whole. It will scarcely ever happen, according to my plan, that the close centre will occupy the position of a mere infirmary for the colony, as in the local circumstances of Gheel is so peculiarly the case. While the infirmary at Gheel serves only for a temporary residence* for particular patients, our central close part ought to, and would always, contain a large number of patients who would reside there for a long time, and in many cases permanently. Of course there is no reason why several, and indeed all modifications of the open system should not be attached to the close asylum; only let

* According to Article 1 of the Bye-Laws. I cannot refrain here from contradicting the completely erroneous idea that the erection of the infirmary at Gheel has approximated the system to that of a close establishment, and taken away its peculiar character. In the autumn of 1866 out of more than one thousand patients in Gheel I found somewhere over thirty in the infirmary. The regulations, the practice of the present chief physician Dr. Bulckens, and the views of the permanent commission for the supervision of the Belgian asylums, (Ducpétiaux, Vermeulen, and Oudart) are equally opposed to this false conception. See "*Neuvième Rapport de la Commission Permanente, &c.*" Bruxelles, 1866, p. 10., et seq.

us have here no pedantry and so called system, beating everything into one form. In an asylum of great extent the most robust and otherwise most suitable inmates may very properly be accommodated at a farm; another portion may be boarded in pre-existing cottages, and if these do not suffice for the family treatment, an additional number may be erected for attendants' families. From the system of mechanical accumulation of patients, to arrive at one of decentralisation, which will give to suitable patients more freedom of movement, and better preserve their individuality, and which confers, as far as possible, the benefits of ordinary life, is an object which may be attained by various methods which do not interfere with one another. The most simple consideration shows that the agricultural colony, supposing this to be preferred to the others, is suitable only to a certain class of persons; but because it does not suit others who would still be adapted to a more open system, ought they not to participate in some way? Neither must it be supposed that the freedom of the colony is the rule, and the close establishment only the exception—nor the contrary. One ought rather to give exactly that degree of freedom which is desirable for each. Experience regarding this degree is being continually augmented. As the other great reform in practical psychiatry, the work of the immortal Conolly, has already done away with the greater part of the excitement and the so-called raging madness (*Tobsucht*) in our asylums, and taught us by an entirely gentle treatment, never restraining the use of his limbs, to recognise the insane persons as quite other than what we had seen in the maniac's cell and the straight jacket; so perhaps the insane person under the open system of treatment will again appear to us other and better than the inmate of our present asylums. If this be the case, then the number of free colonists will more and more preponderate over the number of inmates of the close establishment. This, however, is a question for the future, which we may confidently leave as something still unsettled, if we ourselves do our duty in the present.

I have been already asked what is to be done with the present asylum if the more open form of treatment is carried out. I have, indeed, seen professional brethren who would gladly promote reform in asylum matters if only these large and costly institutions had not been so very lately erected. And yet it is certain that we shall continually require close establishments, such as a large proportion of the present

asylums are, in so far that they possess the character which a rural asylum should have. But instead of increasing the accumulation of masses still further by the erection of new wings, a second department may and will be established at a greater or less distance, for the purposes of the more open system. Where this is absolutely impracticable the close establishment will still be carried on. But the admission of patients will always be confined to those for whom it is really necessary, and the spirit at least of the more open system will penetrate within its walls. In many cases it is already in operation.

In many places, however, there is still a *tabula rasa*. In several countries and provinces of Germany the erection of new asylums is at present seriously contemplated. A number of German Universities look with anxiety to the establishment of sound psychiatric instruction. It is indeed to be regretted that the insane are still so badly cared for in many places, but it may have been a kind of instinct which suggested to the authorities that the organisation which has for the last thirty years been alone recognised as correct, would not be the last that science and practical philanthropy had to create in the department. From whatever cause the delay may have arisen, it is now possible to turn it to good account.

It may be with the very best intentions that many look upon the requirements of the time as being merely the largest possible multiplication of asylums after the present model. Experience, however, might have taught them that they were standing before a Danaid's vase, and that experiments with the no sooner built than overcrowded establishments, involving a continual renewal of what is continually becoming bad, must, from economic, therapeutic, and social reasons, reach a limit.

The necessity for clinical instruction, which is only now recognised, requires the establishment of clinical asylums. The old grievance of the continually increasing claims of the system of provision for the insane will find its best remedy in the adoption of the open system. It is susceptible of unlimited extension at comparatively little expense, and is in one direction so economically advantageous that perhaps it may by good management be made self-supporting. But the question cannot be referred to a distant future. It would be unjustifiable were we to wait till our central establishments overflow—that is, till the purposes of the asylum and the

welfare of the patients are being seriously compromised—before the most congenial treatment for a whole class of patients is established. No. This system should be recognised at once in the first plan of every new asylum as necessary, essential, and immediately required.

I would say to the doubting, the uncertain, and the hesitating—go to the Clermont, and above all go to Gheel. See and examine. It is a sign of a petty spirit to see difficulties everywhere, and ignorantly shrugging the shoulders, to do nothing more. See and examine. Do not think to have everything better at once. Do not think to copy everything exactly as it is. Let your ideas fructify by what is seen according to place and circumstances. Then the talent for organisation may occupy itself in a great task in determining the best application of what is seen and ascertained; instead of, as too often hitherto, in the construction of the best cells, and closets, and things which may be made in any way without having the slightest influence on the welfare of the patients.

Observations on the Temperature of the Body in the Insane. By
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of the Cumberland and Westmoreland Asylum, Carlisle.

WHEN I was engaged a short time ago in trying to determine accurately the effects of certain medicines on maniacal and epileptic patients, the temperature of the body in those patients was one of the things noted by me; and being unable to find in any book the normal standard in the insane, I made and analysed 2000 observations of temperature, so that I might have a standard with which to compare my cases. I examined and noted the temperature of all the patients in this asylum, using the thermometer recommended by Dr. Aitken. I took the temperature in the axilla, and my object being a practical one, instead of examining the patients at the times when the maximum and minimum heat is usually found, viz., immediately after waking, and at midnight, I did so between ten and 12 o'clock in the morning, and between nine and ten o'clock at night. The patients here all get up at 6.15 a.m., and go to bed at 8 p.m. Perhaps those hours will, on the whole, be found more useful and convenient than

any others for the medical officers of most asylums, if any of them should ever refer to those observations for a standard of insane temperature. In my preliminary observations, I found that to get the temperature of the body in the insane perfectly accurate, the thermometer had to be kept in the axilla in many cases for seven or eight minutes, the time varying exceedingly in different cases, but that in most cases the mercury had risen nearly to its maximum at the end of four minutes. Knowing that the general use of such an instrument in the wards of an asylum must depend chiefly on the facility and speed with which it can be used, and wishing to produce a useful standard rather than an absolutely accurate one, I fixed on four minutes as the time during which to leave the instrument in the axilla in every case. The observations were made in the winter months.

I am aware that the numbers examined, especially in the case of some of the forms of insanity, are too small to give a correct average, but they were all I had the means of observing, and even in the case of those forms of insanity of which there are fewest patients in this asylum, there is always a "fair selection" of cases. The results may serve to indicate the direction of the truth, if they are not quite conclusive.

I took the temperatures of 305 patients in all, making two observations each day a patient was examined—one in the morning, another in the evening. On the days in which I was from home, or otherwise engaged, the temperatures were taken by my assistant, Dr. Campbell, but the great majority I took myself. Some of the patients I examined as many as thirty-five times within a period of five months. Such were usually excited patients, or those passing from one state into another, general paralytics, epileptics, and phthisical patients. Only by such frequent examinations can a good average be got in such cases.

In many patients taking the temperatures was a most formidable business indeed. Many of the maniacal patients resisted most violently, and had to be held by force while it was being done. The destruction of thermometers has been considerable. The uses and effects of putting the instrument under the arm were the subject of many and strange speculations among the patients. The favourite theory among the women was that I was finding out the amount of ill-temper in each of them, and many a sly inuendo was put forth as to the quantity that would be found in certain of the

touchy and irascible. Great anxiety was usually manifested to know at the conclusion if there was much ill-temper found. On the other hand many terrible effects were attributed to the harmless bit of glass. It sucked the blood out of some, and the spirit out of others; it made some cold in that side for days, and others hot as long; while in one happy case it killed some rats which had been feasting on the woman's entrails for years!

In examining the patients, I soon found that while there was considerable difference between patients labouring under different forms of insanity, there were also great differences between patients who laboured under the same form of insanity. I found some demented patients to have a high temperature, and others a low temperature; some general paralytics to be high, and others to be low. Certain cases I found to be above the limits of the healthy state, and I shall afterwards refer to these separately. But in the majority of the patients it was evident that all the cases of the various forms of insanity would have to be added together, and the average temperature taken, in order to get an accurate result; and that this result would have a physiological and pathological rather than a clinical value, showing the upward or downward tendencies of the vital force, or the presence of latent but fatal disease in each *class*, rather than giving indications for treatment in each *case*. When acute disease of any kind is present in the insane the thermometer is a most useful, and in some cases indispensable, aid to diagnosis.

In Table I. I have given the results of all the observations I made. I first ascertained the average temperature of each case, and this was used in ascertaining the averages of the different forms of insanity. Instead of taking the usual standard of sane temperature at 98.4° , I examined all the officers attendants and servants employed in the asylum at the same time in the morning as I had examined the patients, and again at night after they had been in bed from one to two hours, as in the case of the patients. I cannot explain the difference between my results and those of Dr. Davy, except that his were scientifically accurate, while mine were only practically so, and that all my observations were made in winter, at a lower temperature of the air than his, and at different times of the day. All the persons so examined were living in pretty much the same hygienic conditions as the patients.

It is seen from this table that the mean temperature is highest in general paralysis (98°), gradually falling in acute

TABLE I.

Form of Insanity.	No. of cases examined.			Morning Temperature.			Evening Temperature.			Mean Temperature.			Difference between Morning and Evening.			Per centage of the cases in which Evening Temperatures were higher than Morning Temperatures.
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Acute and Chronic Mania	7	21	28	deg. 97.44	deg. 97.73	deg. 97.66	deg. 97.25	deg. 97.65	deg. 97.55	deg. 97.34	deg. 97.69	deg. 97.6	deg. .19	deg. .08	deg. .11	41 per cent.
Mania	46	45	91	97.2	97.2	97.21	97.1	97	97.07	97.16	97.1	97.13	.1	.2	.14	38
Melancholia	9	8	17	97.33	97.46	97.39	97.22	96.8	97.03	97.27	97.13	97.21	.11	.66	.36	31
Dementia (mild)	30	14	44	97.23	97.5	97.32	96.79	96.79	96.79	97	97.15	97.05	.44	.71	.53	35
Dementia (complete) ...	24	21	45	97	96.88	96.96	97.04	96.97	97	97.03	96.92	96.98	.04	.09	.04	39
Epilepsy	29	9	38	97.48	97.62	97.52	97.38	97.12	97.32	97.43	97.38	97.42	.1	.5	.2	39
General Paralysis	14	...	14	97.37	...	...	98.	...	...	98.	...	...	.7	...	...	100
Phthisical	5	4	9	97.69	99.16	98.35	97.95	99.39	98.59	97.82	99.28	98.47	.26	.27	.42	56
Convalescent	11	8	19	97.23	97.57	97.37	96.84	97.3	97.02	97.03	97.43	97.2	.39	.27	.35	31
Totals and Averages	175	130	305	97.3	97.32	97.31	97.21	97.17	97.19	97.25	97.25	97.25	.09	.15	.12	41
Sane persons in good health	19	21	40	97.47	97.52	97.5	96.47	96.9	96.7	96.97	97.21	97.09	1	.62	.8	27

mania (97.6°) (the acute and chronic mania includes all the patients who were labouring under attacks of excitement at the time of examination), epilepsy, (97.42°); melancholia, (97.21°); convalescence, (97.2°); mania, (97.13°); and mild dementia, (97.05° ;) until we reach the lowest temperature of all in complete dementia, (96.98°). But when we examine the actual decrease we find that after all complete dementia is only 1.02° below general paralysis; and that the latter is only $.91^{\circ}$ above the temperature of the 40 sane persons examined, while the former is only $.11^{\circ}$ below it. There were nine patients in the house who had phthisis pulmonalis, and their average temperature was highest of all, being 98.47° . The mean temperature of all the patients examined was 97.25° , which is $.14^{\circ}$ above the healthy standard. Every form of insanity, except dementia, was above the healthy standard.

Differences between the Morning and Evening Temperature.

—A very remarkable difference is noticed between the morning and evening temperatures in some of the forms of insanity, as compared with others, and between all the forms of insanity, as compared with sanity. In the healthy the average evening temperature was $.8^{\circ}$ lower than the morning temperature, and this agrees very nearly with what Dr. Davy says has been found to be the difference in temperate climates ($.82^{\circ}$). In mild dementia the difference is seen to be only $.53^{\circ}$; in melancholia it falls to $.36^{\circ}$; in epilepsy to $.2^{\circ}$; in mania to $.14^{\circ}$; in acute excitement to $.11^{\circ}$; in complete dementia the evening begins to be higher than the morning temperature by $.04^{\circ}$; in the phthisical this difference mounts up to $.24^{\circ}$; and in general paralysis we find that the difference is $.77^{\circ}$, being nearly as great on the side of the evening temperature as we find in health on the side of the morning temperature.

This is a striking fact, when we consider that in acute fevers, and indeed in nearly all bodily disorders, a rise in the evening temperature is always looked on as a bad sign. It is a sign of *progressive disease* in fact, and when we look at the sequence of the forms of insanity, when arranged according to their differences of morning and evening temperature, beginning with that in which it is nearest to the healthy state, we have an exact scale of the death rate among the insane. Mild dementia is unquestionably the form of insanity most like sanity, both in its psychological characteristics and in its freedom from an active tendency to death; while general

paralysis, at the other end of the scale, is the most fatal by far.

An examination of the temperatures of the individual cases of general paralysis shows a still more striking fact in reference to the increase of the evening temperature. (See table II.)

TABLE II.

	AVERAGE TEMPERATURE.	
	MORNING.	EVENING.
	Degrees.	Degrees.
D. M. (end of 1st stage—excited) ...	98.01	98.14
J. W. (1st stage—slightly excited) ...	96.4	97.2
W. B. (end of 1st stage)	97.15	98.16
F. L. (1st stage—quiet, rational)	96.5	97.52
M. B. (end of 1st stage)	97.84	98.
H. P. (1st stage—a little excited) ...	97.5	98.42
T. T. (2nd stage)	97.18	97.5
J. W. (2nd stage)	96.44	97.05
R. T. (2nd stage)	96.4	96.56
W. L. (2nd stage—depressed)	95.14	96.38
A. K. (2nd stage)	97.2	98.2
J. C. (3rd stage)	98.5	100.7
G. R. (3rd stage)	99.6	99.9
G. E. (3rd stage—moribund)	102.5	103.5
	97.6	98.37
Mean temperature	98.	

Among those fourteen general paralytics there are patients in every stage of the disease, from the beginning of the first, when there seems scarcely anything wrong at all with the patient, to the end of the last stage, when death is daily expected. Some of them have passed from one stage of the disease into another while the observations were being made on them, and the average temperature of each was determined by ten observations.

In every case, without exception, the evening temperature is higher than the morning. This affords a most valuable indication in the diagnosis of doubtful cases of the disease. What would the physician not give sometimes to be able to pronounce certainly that a case is *not* one of hopeless brain disease? And how much mischief might be prevented, and property saved, and danger and annoyance to relations avoided, if the disease could be more certainly diagnosed in its early stages? It seems probable that this constant rise in the evening temperature will be found to exist in all pro-

gressive brain diseases, and may be found as useful in the diagnosis of other obscure organic affections of the brain as in general paralysis. To know in many cases whether the brain is affected with the beginning of organic disease is one of the most difficult problems the physician ever has to solve. This constant increase of evening temperature in general paralysis seems to confirm Bayle's original theory, that the disease is of an inflammatory nature.

One day's observation is not at all sufficient to determine that the increase of temperature does or does not exist in the evening in general paralysis. On some days I found the evening temperature lower, especially in the second stage of the disease. It is necessary to take the average of a number of observations.

The difference between the evening temperature of this disease and the morning temperature of complete dementia is 1.41° . The temperature is high in the first stage of general paralysis, lower in the second stage, and again very high in the third. (See Table II). The evening temperature is most increased as compared with the morning temperature in the third stage, and least in the second.

In the phthisical cases the evening temperature was higher than the morning, but not so much so as in general paralysis. It depended entirely on the stage of the disease, whether in any one case the evening temperature was higher. If the disease was active and the temperature increased much above the normal standard of health, then it was always higher in the evening. If the disease was not active it was not so increased. Out of the nine cases there were four in which it was increased and five in which it was not; but the increase was so great in those four that it brought up the average. On the whole the temperature in the phthisical tends to be high, whether the tuberculisation is active or not. It was never below 97° in any of them; never went above 98.5° where the disease was not active; but was seldom below 99° , when it was active, and sometimes rising to 101.3° . These observations refer to the *average* temperature, for I have found it to be only 96° at times in such cases, and I one evening found the temperature of a woman, who had acute tuberculosis, and who was never under 100° at any other time, to be only 98.6° . The difference between the evening temperature of phthisis and the morning temperature of complete dementia is 2.51° , which is the greatest difference in any of the averages.

If we compare the average morning temperature of all the patients examined with the average morning temperature of the sane, we find that in the sane it is $.19^{\circ}$ higher, while the evening temperature of the insane is $.49^{\circ}$ higher than that of the sane. This proves that the increase of the evening insane temperature is an absolute increase over what is normal, and not a mere relative increase over a low morning temperature, as might be the case if it was due merely to a languid circulation and weak vital energy. In that case the temperature would be low through the day, while the patients were up, and would be more near the normal standard when they were warm in bed, but it would never go beyond the normal standard. In the morning, only epileptics, acutely excited patients, general paralytics, and the phthisical come up to the sane standard; in the evening they *all* go above it, mild dementia making the nearest approach to it, and complete dementia, which is $.56^{\circ}$ lower in the morning, rising $.3^{\circ}$ above it at night.

If a slight difference from the ordinary rule of health in regard to the rising of the evening temperature has such a fatal significance in general paralysis, I think we may conclude that the same tendency in a lesser degree points in the same direction in the other forms of insanity, confirmed as it is by our experience of the death rate in them. It is a sure index of the tendency to death—in other words, it expresses all the latent disease, and the inability of the vital forces to resist disease, which exist. Unfortunately, we find that in a certain proportion of the sane and healthy, the usual rule of health as to the fall of the evening temperature is reversed; so that we cannot take this as a sure diagnostic sign in individual cases. But on looking over a list of the names of all my patients, whose evening temperatures are higher than their morning temperatures, while many of them seem quite healthy, yet I find in it nearly all those whom I suspect of having brain disease, and most of those whom I imagine to be predisposed to phthisis. In the sane (see Table I), I found that 27 per cent. had this peculiarity, while in the insane there were 41 per cent. Doubtless this extra 14 per cent. all represents *progressive disease*; but inasmuch as in many of them the increase was very slight indeed, I think the average temperatures are a more sure criterion. Looked at in this light of the significance of small variations of the morning and evening temperature, we can see better the meaning of the slight

differences in the *mean* temperature of the various forms of insanity. A small part of a degree of difference in the animal heat when it is a constant concomitant of a certain form of insanity, as shown by the average of a large number of cases, seems to have as definite a meaning as the difference of three degrees in a case of acute febrile disorder. In the one case, it enables us to tell the strength of the tendency to death in the class; in the other case it enables us to predict life or death to the individual. The thermometer has first been applied for the latter purpose, and its indications studied; but I should not be surprised if it gave most interesting and important results, if applied in the former way also. Would it not tell, if applied in the case of a large number of people living in the neglect of proper hygienic conditions, that the laws of nature were being broken? Might it not give indications if unwholesome, or insufficient, or too abundant diet were eaten? And might it not in many cases give the very first warning that some insidious disease was coming on? I confess I should be very uncomfortable if I found my evening temperature getting higher than the morning temperature, and if this was accompanied by any rise over the normal standard.

Differences of Temperature between various individuals labouring under the same form of insanity.—Such differences prevail most in epileptics, general paralytics, and acutely excited patients, but they exist in all the forms of insanity. Between different epileptics, I have found an average difference of 3° , while taking the highest observation of epileptic temperature I ever observed, without any actual disease being present (101.2°), and comparing it with the lowest, (94.8°), there is a difference of 6.4° . In general paralysis the greatest difference of average temperature I have observed was 7.24° , between a man in the second stage, quiet and stupid, whose temperature was 95.76° , and another moribund patient who was 103° . This patient died, and the congested, almost pneumonic, state of the posterior part of the lungs, may have caused increased heat; I have, however, found the temperature to be 102.6° twenty-four hours after an epileptiform attack, which is an increase of 6.84° over the low temperature referred to. The greatest difference between any two single observations in general paralysis was 8.7° . In only five instances have I met with a temperature below 95° ; one of these was an epileptic, one a general paralytic in the second stage, one laboured under mania, and two were demented. I was often surprised by finding a few

of the most completely demented persons to have an average or high temperature. There is an idiot here who is 98.4° . A weak circulation at the extremities is by no means always accompanied by a low temperature. One woman, whose hands used to get quite purple and swollen, and as cold as lead if she were away from the fire for half an hour, had a temperature of 98.5° in the axilla at the time. It is not uncommon to find the temperature in the insane between 95° and 96° ; but I found among the attendants here two men and one woman, strong and perfectly healthy, whose temperatures were under 96° , two of them being so both in the morning and evening, and the third in the evening. I was most particular, too, in taking those cases, and the mercury would not go above 96° , however long the thermometer was left under the arm. The greatest difference noticed between any two of the sane persons was 3.6° . I found two of them had an evening temperature 1.5° above their day temperature. The highest sane temperature was 99.2° .

Differences in the same person at different times and in different mental states.—I examined twelve patients in all the gradations of mental state, from depression up to acute excitement. The general result was that the temperature was decidedly higher in acute excitement than in depression or quiescence. Where short attacks of mania rapidly succeed each other periodically, the difference is not so marked as in the case of periodic mania coming on at long intervals. In four of the latter cases the difference between the average temperature taken in the slightly depressed state and in acute excitement, was 2.2° ; while the average difference between excitement and depression in the twelve cases was 1.1° . The exact periods of the highest temperature varied greatly; in five of the twelve cases it coincided with the acme of the excitement, in two cases it preceded this, in two cases it followed it and existed in the subacute stage, in one it was quite variable, and in two this period of the most acute excitement was the time of the lowest temperature. The greatest difference I observed in the same person, excited and quiet, was 3.6° in mania, 4.7° in epilepsy, and 5.8° in general paralysis. In the latter disease I found that in two of the patients, in whom the fits had existed almost since birth, the very lowest temperatures existed at times, while at other times the very highest temperatures existed. The effect of epileptic fits on the temperature is a very interesting and complicated subject. I do not propose to go fully

into it here, not having determined all the points connected with it. The immediate effect of an epileptic fit is to depress the temperature, and if the patient is in bed and goes to sleep after the fit, it will sometimes go down for three hours at the rate of $.75^{\circ}$ per hour. A fit taken during the day depresses, and afterwards slightly raises the temperature. Two fits taken during the night almost always raise the temperature 1.5° in the morning. Two fits taken during the day depress slightly, and then nearly always raise the temperature 1.2° in from one hour to five from the time of taking the last fit. If one or two fits produce a stupified, confused state lasting for many hours, the temperature is sometimes raised 3° or even higher; but this is rare, and even when it is the case it always falls again within twelve hours. I have only observed it three times in over 500 observations on epileptics.

One of the most interesting facts observed by me was the effect of an epileptiform fit in general paralysis. I found that the temperature was always much raised after such an attack. After sinking slightly for an hour or two, it began to rise, and went up in twenty-four hours 2.5° , and in thirty-six hours 6.6° , in one case after two such attacks. Even one such fit—not very severe, and passing off at once, and the patient getting up in the morning as if nothing had happened—caused an increase of 3° in three days; and this is the peculiarity of those attacks, that the patient's temperature is left for some time higher than it had previously been. It is often exceedingly difficult to tell such fits from true epileptic fits in the beginning of disease. When, as I have known to happen, a man about whom nothing had previously been noticed wrong mentally, falls down in "a fit," from the description of which, by the relatives, no medical man could well distinguish it from epilepsy—in such a case, if the temperature was found to rise up to 99° or 100° steadily for two days; and if the temperature was higher at night than during the day, I should have but little hesitation in pronouncing the case to be one of general paralysis, though no other symptoms were present. In the ordinary forms of insanity, I have found masturbation to cause an increase of temperature almost equal to an epileptiform fit in general paralysis.

Temperature in the different periods of life in the insane.—When all the cases examined (except those under twenty, they being too few to give any trust-worthy result) are analysed and arranged into three periods of life, viz., from

TABLE III.

AGES.	No. of cases examined.			Morning Temperature.			Evening Temperature.			Mean Temperature.			Difference between Morning and Evening.			Per centage of cases in which Evening Temperature was higher than Morning Temperature.
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Between 20 and 40 ...	76	41	117	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	32 per cent.
" 40 and 60 ...	71	56	127	97.42	97.7	97.51	96.9	97.42	97.07	97.16	97.56	97.29	.52	.28	.44	42 "
" Over 60	25	28	53	97.34	97.25	97.3	97.11	97.02	97.08	97.23	97.14	97.19	.23	.23	.22	57 "
				96.72	97.01	96.88	97.09	96.79	96.93	96.91	96.9	96.9	.37	.22	.05	

twenty to forty, from forty to sixty, and over sixty years of age, and then the averages taken, as in Table III., no regard being paid to the forms of insanity, the following results are obtained :

The morning temperatures get lower each twenty years, being $.63^{\circ}$ lower in the patients over sixty than in those above forty.

The evening temperatures get lower also, but not to such an extent, being only $.14^{\circ}$ lower over sixty than above forty.

The difference between the morning and evening temperature therefore increases, being $.49^{\circ}$ more over sixty, than under forty. Over sixty, the evening temperature is higher than the morning temperature.

The per centage of cases in which the evening temperatures are higher than the morning temperatures, rise from 32 per cent. under forty, to 57 per cent. over sixty.

The morning temperature of those under forty, nearly corresponds with the sane morning temperature, the morning temperature of the older patients being below this, while all the evening temperatures are considerably above it.

The general lowering of the temperatures is, no doubt, owing to the diminished vital power as life advances, while the slow rate of decrease of the evening, as compared with the morning, is, no doubt, explained by the larger proportion of organic brain disease among the older patients keeping up the average evening temperature, thereby showing the greater tendency there is to death at the more advanced ages. As we saw from Table I., that when the average evening temperature gets considerably above the morning temperature, in any form of insanity, as in the phthisical and general paralytics, it indicates a very high death rate ; so we find here that this law holds good, for over sixty the death rate is very high from organic affections of the brain, especially among males, and among the men over sixty the evening temperature is much above the morning. Anyone who has performed many *post mortem* examinations among the insane knows how often softenings from atheromatous arteries, &c., are found in patients above sixty.

TABLE IV.

FORM OF INSANITY.	Morning Pulse.			Evening Pulse.			Mean Pulse.			Difference between morning & evening pulse.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Mania	81	89	84	71	82	76	76	85	81	10	7	8
Melancholia	78	82	80	71	74	72	74	78	76	7	8	8
Dementia (mild)	81	79	80	75	75	75	78	77	78	6	4	5
Dementia (complete) ...	73	86	80	71	77	74	72	81	77	2	9	6
General Paralysis	92	...	...	83	...	...	88	...	...	9	...	...
Phthisical	88	105	96	78	100	88	83	103	92	10	5	8
Convalescent	81	79	80	72	73	72	76	76	76	9	6	8
Averages	82	87	84	74	80	77	78	83	80	8	6	7
Healthy Persons	77	84	80	70	78	74	74	81	77	7	6	6

Temperature in relation to the pulse.—In Table IV., the average frequency of the pulse is given in the different forms of insanity. We see that while the mean frequency of the pulse corresponds almost exactly to the temperature, rising and falling with it in the different forms of insanity, being highest among the phthisical (92), the general paralytics coming next (88), the rate gradually falling in mania (81), mild dementia (78), complete dementia (77), and melancholia and the convalescent (76), the rate in healthy persons being 77. Mania, general paralysis, and phthisical mania are the only forms in which the mean pulse is markedly higher than in health, while the general frequency of the pulse among all classes of the insane is somewhat higher than in the healthy, just as the temperature was found to be. The *mean* rate of frequency corresponds very closely with the usual rule in regard to individuals suffering from disease, viz., that ten beats of the pulse correspond to a degree of temperature.

We do not find that in any form of insanity the average frequency of the pulse is greater in the evening than in the morning. In this respect it does not correspond to the temperature, and the rule mentioned above is actually reversed. Even among the phthisical, this tendency, which was present among those suffering from the acute forms of the disease, was quite counterbalanced by the opposite tendency among those who had the less rapid forms of consumption.

In dementia there is a tendency for the evening pulse to rise, the morning remaining at about the average, so that the difference between the morning and evening becomes lessened. On the whole, the difference between the evening and morning pulses among the insane is greater than among the sane.

I noticed a very curious fact in respect to temperature in inflammation: four of the patients, whose temperatures I had previously taken, happened to have inflammations—two of them of the leg below the knee, one of the groin, and one of the foot. During the course of the inflammations, the temperature in all of them was increased, and was higher in the evening than in the morning; the pulse, too, being higher in the evening, as is usual in inflammatory and febrile affections. But after the inflammation had disappeared, and the parts healed, when the morning temperature and pulse were down to their normal standard, and when the evening pulse had sunk below the morning pulse in frequency, yet *for many weeks the evening temperature remained higher than the morning temperature*. In all of them I had ascertained that this was contrary to their usual state in health. In three of them it gradually got lower, till it reached its normal state; while in the other it yet remains higher in the evening. This would seem to show that the rising of the evening temperature is a far more delicate test of latent disease and its effects, than the pulse or any other test known to us. Or is it that when the system gets into the feverish habit, as it were, it retains it for some time after the actual disease has disappeared? At all events, it is a phenomenon well worth attention and study in a larger number of cases.

The general results of my observations may be thus summed up:—

1. The temperature of the body is higher in the insane than in the sane.

2. The temperature is highest in phthisical mania, gradually falling in the following order:—General paralysis, acute mania, epilepsy, melancholia, mania, mild dementia, and complete dementia.

3. Dementia is the only form of insanity whose average temperature is below health.

4. The great characteristic of all the forms of insanity, is that the difference between the morning and evening temperature is much less than in health, and this is owing to

the rising of the evening temperature, and not to the lowering of the morning temperature as compared with the healthy standard.

5. This rising of the evening temperature as compared with the morning is in the exact ratio of the death rate among the various forms of insanity, finding its acme in general paralysis.

6. In general paralysis, the average evening temperature is higher in every case than the morning temperature (the observations being taken over a sufficient period).

7. In phthisical patients the temperature is high, and is especially high in the acute forms of the disease, but the latent forms cannot be certainly diagnosed by thermometric observation.

8. The evening temperature of *every* form of insanity (even complete dementia) is higher than the evening temperature of health.

9. The greatest differences in different individuals labouring under the same form of insanity are found in general paralysis, epilepsy, and acute mania. In the first named a difference of 8.7° has been found.

10. Excitement in a patient is almost always attended by an increased temperature as compared with depression or quiescence. This difference averages 2.2° in periodic mania with long periods, and 1.1° in periodic mania coming at shorter intervals. In general paralysis there may be a difference of 5.8° in the same individual in different stages of the disease.

11. An epileptic fit depresses the temperature at first, and then tends to raise it a little, but it makes a difference whether the patient sleeps or wakes after the fit.

12. The epileptiform fits of general paralysis are always followed by a greatly increased temperature, lasting for several days, and they may in this way be distinguished from ordinary epileptic fits.

13. The average temperature falls as the patients get older, but the fall takes place chiefly in the morning temperature.

14. The *average* frequency of the pulse in the various forms of insanity corresponds with the *mean* temperature, but the rise in the evening temperature has no corresponding rise in the evening pulse.

On Aphasia or Loss of Speech in Cerebral Disease. By FREDERIC BATEMAN, M.D., M.R.C.P., Physician to the Norfolk and Norwich Hospital.—*Continued from Journal of Mental Science, January, 1868, page 532.*

FROM the brief summary I have given of the labours of the pathologists of the French school, it will be observed that the evidence deducible therefrom is of such a conflicting character as to leave quite unsettled the complex question of the localisation of the faculty of speech. The history of the continental contributions to the literature of aphasia would, however, be very incomplete, without a brief glance at the researches of the German and Dutch physiologists.

Schroeder van der Kolk,* in his chapter on the accessory ganglia in the medulla oblongata, endeavours to establish a close physiological and pathological connection between the function of articulation and speech and the corpora olivaria. Besides citing numerous cases in illustration of his hypothesis, he gives an *a priori* reason for his theory in the fact that the corpora olivaria occur only in mammalia—that on comparing these organs as occurring among mammalia themselves, it is to be observed that they nowhere exist on so extensive a scale, and are so fully developed, or present so strongly plaited a corpus ciliare, as in man; that in the higher mammalia, as the apes, they are most like those in man, and that in man they exceed in circumference by two or three times those of the chimpanzee. To Van der Kolk these circumstances are suggestive of the idea that in man the corpora olivaria have a much more important function to discharge than in animals; and as these bodies are connected by special fasciculi with the nuclei of the hypoglossus, he looks upon them as auxiliary ganglia of that nerve, and as such, joined to it for the production of special combinations of movement. He also suspects that the very delicate combinations of motion in the human tongue in articulation and speech, may afford an explanation of the much greater size of the olivary bodies, and of their more intimate connection with the nuclei of the hypoglossus. In support of these views Van der Kolk cites several cases of impairment of the faculty of speech, in all of which there was found after death

* On the Minute Structure and Functions of the Spinal Cord and Medulla Oblongata. Translated by Dr. W. D. Moore, p. 140.

lesion or degeneration of the olivary bodies. Of these observations the limits of this essay will only permit me briefly to allude to one which seems to me to be particularly pertinent to the subject now under consideration.

G. van A., aged 22, had been dumb from birth, but not deaf. She had always enjoyed good health, and although idiotic, usually understood all that was said to her; but had never been able to form an articulate sound, and only now and then uttered a squeak. The patient having died from the effects of diarrhœa, the following appearances were observed at the autopsy. On removing the hard, but thin and small skull, the cerebrum appeared small and ill-developed; the convolutions, especially on the anterior lobes, were slight and not numerous; in consequence of the diminished arching of the anterior lobes the so-called convolutions of the third rank of Foville were very small, and scarcely shown on the inner longitudinal surface of the hemispheres; the convolutions on the posterior lobes were also but little developed. On the anterior lobes, beneath the os frontis, was seen a spot of the size of the palm of a small hand, and bloody exudation under the arachnoid, in which situation the pia mater was adherent to the cortical substance, which was in many parts softened. On section the grey and white substances were here and there thickly studded with red sanguineous points; the thalami optici presented a strikingly yellow colour; the pons Varolii was smaller and narrower than usual, and the corpora olivaria were unusually minute and slightly developed, being less than one third of the normal size.

Van der Kolk, in commenting on this case remarks: that as in this instance there was complete inability to articulate, and consequent absence of speech, without deafness and without proper paralysis of the tongue, which the patient could move, coinciding with an extremely defective development of the corpora olivaria; therefore the influence of these bodies on the complicated movements of the tongue in speech seemed scarcely to admit of doubt!

It will be observed that in laying great stress on the fact of the atrophy of the olivary bodies, the learned Utrecht Professor quite loses sight of the deductions to be drawn from the extremely imperfect development of the frontal convolutions, and also from the positive diseased condition of the anterior lobes; and it seems to me that both Bouillaud and Broca would have a word to say here in favour of their respective theories.

In further support of his views Van der Kolk quotes two cases, observed by Cruveilhier, in one of which the right corpus olivare had undergone grey degeneration, and in the other both these bodies were found as hard as cartilage.

Romberg mentions the case of a sailor, who on being struck on the left side of the head by a loose rope, at once fell into a state of insensibility. After a quarter of an hour he recovered consciousness, but was found to have lost the use of the right half of the body, and to have become speechless. Three weeks afterwards the mobility of the extremities had been restored, and the tongue could be moved in every direction without difficulty, but the faculty of speech was arrested; and although perfectly conscious, it was only with the greatest effort that he was able to utter a few inarticulate sounds. Some blood was taken locally on several occasions by leeches applied behind the left ear, a combination of sulphate of magnesia and tartar emetic being administered at the same time; and in three weeks from the commencement of this treatment his speech returned, and he was completely restored.* He also mentions an interesting case of impairment of the speech, with partial paralysis of the left side, which after death was seen to depend upon a large tumour, seated in the right half of the pons Varolii, and extending posteriorly under the right olivary body.†

Dr. Bergmann, of Hildesheim, has written a masterly treatise on loss of memory and of speech, illustrating it by a series of well recorded cases, to some of which I propose very briefly to refer.‡

A ploughman, Wt., aged 40, of short stature, fell through the trap door of a garret upon the left side of the head. Much blood immediately flowed from the left ear and mouth, the bleeding from the ear continuing for two days. For four weeks he lay stunned and without power of recollection; he heard nothing, his speech was unintelligible, and his eyes were closed. When his consciousness was fully recovered, it was noticed that both eyes were turned towards the nose, (there was double convergent strabismus), the pupils were somewhat dilated and sluggish, there was intolerance of light and diplopia; his memory was observed to have suffered in a

* On the Nervous Diseases of Man. Translated by Dr. Sieveking, p. 310.

† Ibid, p. 407.

‡ Einige Bemerkungen über Störungen des Gedächtniss und der Sprache Allgemeine Zeitschrift für Psychiatrie, 1849, S. 657.

peculiar manner—the memory of *proper names and of substantives* was abolished, whilst that of *things and places* remained unimpaired; and he also had retained the power of correctly speaking and using *verbs*. He knew what he wished and ought to say, but could not connect the letters of substantives one with another. He knew exactly the place, the way, the streets, and their names, although he was quite unable to give utterance to these names. The same defect was noticed in reference to the furniture, and in fact to every other object. He was shown a penknife, a key, a looking glass, and he described their use by a periphrase. He said of the scissors which were shown him—it is what we cut with. On pointing to the windows he said, it is what we see through—what admits light.

A man of large stature, strong constitution, and ruddy complexion, with knowing, lively, expressive eyes, for upwards of ten years had never spoken a single word, not even a yes or no, when alone or in company. He heard well, had a good memory, and a proper supply of ideas. He wrote a particularly firm and correct hand, and was never tired of putting his ideas and foolish fancies on paper. From these written effusions it was seen that his principal delusion was that he considered himself a great lord and potentate, who sent his decrees and decisions forth to the world. He was always accusing others, but in the most dignified language; and he commanded and gave his instructions after the manner of one learned in the law of the highest courts of appeal. It was evident that he had intelligence, but a perverted one; he heard and understood, as his written answers and other behaviour clearly showed. He was docile, he waited on the other patients like a brave nurse, and willingly employed himself with ordinary handiwork. During the many years that this man remained under observation, no means were left untried to ascertain whether he could be made to speak; but no fraud, no surprise, no sudden or sharp pain, no electric shock, no hot iron, no entreaty, no threat had ever succeeded in extracting from him even the slightest yes or no.

Dr. Bergmann, in commenting upon this singular case, and in endeavouring to reach the explanation of the physiological and pathological enigma involved in it, suggests two hypotheses: That there may have been a fixed idea, a fixed will, a caprice, an obstinate strong purpose, his physiognomy seeming to say—I remain still firm and true to myself, I will carry out my purpose, I will triumph, and I will not yield.

Then on the other hand, if one considers that he was good-hearted and well-disposed, obliging and friendly, and that he was scarcely ever angry, notwithstanding all the opposition to his wishes, it would seem more probable that there was a real organic inner momentum (*inneres organisches Moment*), some hidden impediment which produced loss of speech.

The only remaining case from this author to which I shall allude is that of Anna W., æt. 30, who up to the age of twenty was sound in mind and body, when a nervous fever laid the foundation of mental disturbance and chronic headache. After a time weakness of memory was noticed, and she became indifferent, unfeeling, and unsympathising. There was this peculiarity about the memory—that it was particularly weak and almost extinct in reference to subjects of recent date, whilst she could well remember the events of the earlier period of her illness. For upwards of two years she had never spoken a word, however much one roused her, although her manner gave unmistakable evidence that she could hear and understand what she heard. She had thoughts, conceptions, and ideas; there must then, says Dr. Bergmann, be an organic defect which rendered her unable to give vent to her thoughts by means of words or even by a sound.

I shall again have occasion to refer to Dr. Bergmann's highly philosophical treatise in another part of this essay.

Dr. Hasbach, of Geldern, has recorded the following case of *left hemiplegia with aphasia*:—A merchant, aged thirty-six, with a robust, thick-set body, who, from speculating in the funds, became in a short time very rich, was suddenly seized in the night after a hearty meal with apoplexy, resulting in complete paralysis of the left arm and leg, and loss of speech. After a month's treatment, the paralysis of the leg had so far subsided that he could walk slowly with the aid of a stick, the upper extremity remaining, however, entirely paralysed and deprived of sensation. With the exception of one single phase, he did not recover the power of speech, the only words he could articulate being, "*gerechter Gott*," which he would repeat a hundred times each day. There was also this remarkable peculiarity, that although he could pronounce clearly and distinctly so difficult a phrase as *gerechter Gott*, he was quite unable to articulate separately the letters of which this expression was composed.*

Dr. W. Nasse, of Bonn, has written a valuable essay on

* Allgemeine Zeitschrift für Psychiatrie, 1852, S. 262.

defects of speech, in which he mentions the case of a man thirty years of age, who, after repeated attacks of apoplexy, was paralysed on one side of the body, retaining possession of his mental faculties. The movements of his tongue were unfettered, and he could make himself understood; in the middle of his sentences, however, he often applied wrong words, but immediately recognised his mistake, expressed concern for it, and would endeavour to extricate himself from his difficulty by gesture and periphrase. If the required word were named before him, he would repeat it with glib tongue, and could also write it down. After repeated attacks of cerebral congestion, the power of speech progressively diminished, and he gradually fell into a state of imbecility.

Dr. Nasse, in his general remarks, calls attention to the fact that most frequently proper names and substantives, words which are first learnt in childhood, and which are in more general use, seem to disappear, whilst verbs and adjectives, which are acquired later, remain preserved. He also thinks the loss of the memory of words bears no relation to the condition of the muscular power.*

Von Benedikt and Braunwart have an excellent and exhaustive paper on lesions of the faculty of speech, from which I shall only quote the following case of *aphasia from lead poisoning*, as reported by Heymann.†

Jacob Astheiner, journeyman plasterer, aged sixteen, had suffered for many years from time to time, with lasting headache. Eventually, in the otherwise taciturn patient, were observed great vivacity and wantonness, and the ordinary symptoms of plumbism. A few days afterwards he ceased to answer any questions, and was unable to utter a syllable; there was also agraphia. A fortnight later his speech partially returned, and he spoke a few words very indistinctly, and would for many hours together cry out *Va-ater*, *Mau-auter*, and also *Hu-unger* with joyful, excited voice. This patient gradually but entirely recovered.

It will be observed that in some of the preceding cases, the subjects of them were lunatics or persons of weak mind; in my opinion, they are none the less valuable on that account; in fact, Broca's first two cases, the publication of which has given rise to so much discussion and research throughout the scientific world, were observed by that distinguished patholo-

* Ibid, 1853, S. 525.

† Canstatt's Jahresbericht, 1865; Dritter Band, S. 31.

gist in an institution devoted to the treatment of the various forms of mental disease. Although aphasia is by no means a very common symptom in the insane, I cannot but think that the alienist physician possesses unusual opportunities for contributing to the solution of what still remains one of the most difficult questions in cerebral pathology.

Amongst British authors the earliest observations that have come under my notice are those of Crichton, who, in his chapter on Memory, mentions several cases bearing on the subject under consideration, from which I have selected the following:—

An attorney, in his seventieth year, having indulged in great venereal excesses, was suddenly seized with great prostration of strength, giddiness, insensibility to all the concerns of life, and every symptom of approaching fatuity. When he wished to ask for anything, he constantly made use of some inappropriate term; instead of asking for a piece of bread he asked for his boots, and if these were brought he knew they did not correspond to the idea he had of the things he wanted, and therefore he became angry, yet he would still demand some of his boots or shoes, meaning bread. If he wanted a tumbler, he would ask for a chamber utensil, and if it happened to be the said chamber utensil he wanted, he would ask for a tumbler, or a dish. He evidently was conscious he used wrong words, for when the proper expression was spoken by another person, and he was asked if it was such a thing he wanted, he always seemed aware of the mistake, and corrected himself by adopting the appropriate expression. This gentleman was cured of his complaint by large doses of valerian and other proper remedies.

Crichton also mentions instances of persons who suddenly found that they could not remember their own names, the most striking being that of an ambassador at St. Petersburg, who, on calling at a house where he was not known by the servants, and wishing to give his name, could not remember it; and turning round to his companion said, with much earnestness, "For God's sake tell me who I am."

Abercrombie, whose work on cerebral disease is perhaps more quoted than that of any other British author of the past generation, has recorded numerous cases of cerebral loss of speech, of which I can only briefly allude to the following,

which are in direct opposition to the recent theories as to the seat of the faculty of articulate language.

A man, aged fifty, who had been for some time subject to cough and bloody expectoration, was seized with frontal headache and some confusion of thought, which appeared chiefly in a tendency to misapply words; he soon lost the sight of the right eye, his speech became indistinct, and, after some time, inarticulate; and he died in two months from the commencement of the cerebral symptoms. At the autopsy there was found, at the *posterior* part of the left hemisphere, a soft and vascular cyst, containing about two ounces of a thick, colourless fluid, coagulable by heat, and exactly resembling the albumen of an egg; the cerebral substance around the cyst was softened, the brain in other respects being healthy.

A man, aged sixty, after some premonitory symptoms, was suddenly seized with *left hemiplegia and inarticulate speech*, his intelligence, however, being unimpaired. At the end of a month he was suddenly seized with perfect loss of speech, which was followed in a few hours by coma, from which he did not recover. The substance of the brain was found healthy, except at the outer part of the right hemisphere, where there was a considerable portion in a state of complete ramollissement. The pia mater on the upper part of both hemispheres appeared thickened, and was remarkably vascular; there was considerable subarachnoid effusion, and both lateral ventricles were distended with fluid.

The same author mentions the case of a child, four years and a half old, whose articulation had been for many months very imperfect, and at whose autopsy the corpora olivaria, the crus cerebelli, and the tubercula mammillaria were found in a state of cartilaginous hardness; other parts being sound.*

Baillie relates the history of a gentleman, aged fifty-six, who, after an attack of right hemiplegia, lost the recollection of the words of his own language, except a very few (yes, no, Mr. Reed, yesterday), which he employed on all occasions, and pronounced with the greatest distinctness, exhibiting none of that thickness in his pronunciation which is so common in paralytic patients; his countenance expressed a full share of understanding, and he seemed to comprehend all that was said to him. In the account of the necropsy, the brain and its membranes are described as perfectly natural in appearance, but the left vertebral artery was enlarged, and its

* On Diseases of the Brain and Spinal Cord, pp. 173, 273, 431.

coats had become opaque; there was considerable effusion into the lateral ventricles, which probably coincided with the occurrence of the coma which set in a few days previous to his death.*

Bright describes a case of dextral paralysis with aphasia, occurring in a man aged 63, who had a few years before married a woman much younger than himself; he had also for several years been the subject of an open ulcer in the leg, which had healed up six or seven months before the paralytic seizure. After death there was found softening of the middle and posterior lobes of the left hemisphere, the anterior lobe being unimpaired. The vessels at the base of the brain, particularly the carotid and its branches, were very much ossified, and the mitral valve was converted into an irregular bony mass. There is a very beautiful plate appended to the description of this case, from which it would appear that the disease commenced in the cortical portion.†

Dr. Copland, who has written *de omnibus rebus et quibusdam aliis*, has, of course, not omitted to speak of lesions of speech; our great medical lexicographer, however, seems only to have viewed them as motor defects, and not as due to the loss of an intellectual faculty; and the only case which is given in detail in his work on apoplexy, is clearly one of disease at the origin of the lingual and glosso-pharyngeal nerves, and not an instance of lesion of the faculty of articulate language.‡

In the *Dublin Quarterly* for February, 1851, Graves has recorded a most singular instance of amnesic aphasia, limited to substantives and proper names. The subject of it was a Wicklow farmer, fifty years of age, who, after an attack of hemiplegia, was affected with an incapacity to employ nouns and proper names, he being able in other respects to express himself well. This defect was accompanied by the following singular peculiarity: that he perfectly recollected the *initial letter* of every substantive or proper name for which he had occasion in his conversation, though he could not recall to his memory the word itself. He consequently made for himself a little pocket dictionary of the words in most general use, including the proper names of his children, servants, and acquaintances, and during a conversation he would look in his dictionary till he found the word he wanted, keeping his finger and eye fixed on the word until he had finished the

* Medical Transactions of the College of Physicians, Vol. iv.

† Reports of Medical Cases, Vol. ii., p. 177.

‡ Copland on Palsy and Apoplexy, p. 37.

sentence, but the moment the book was closed, the word passed out of his memory and could not be recalled, although he recollected its initial, and could refer to it again in his dictionary when necessary. The learned Dublin professor, in his clinical lectures, has recorded two most interesting cases, where loss of speech was at first the only morbid symptom, but he does not dwell on the pathology of this singular affection; and, strange to say, although the cases recorded are typical instances of aphasia, he seems to imply that in loss of speech the defect may lie in the glottis rather than be the result of cerebral lesion!*

Sir Thomas Watson relates a remarkable case of a gentleman, who had a sudden fit of apoplexy, for which he was freely bled, and who on the third day was apparently quite recovered. On the fifth day, after a long conversation, he suddenly lost the thread of his discourse, became confused, and misappropriated words—for instance, wishing to say “camphor,” he called it “pamphlet.” After a few days the right side of the body became paralysed, and he died at the expiration of a fortnight from the commencement of the attack. At the post mortem, an abscess was found at the upper part of the left hemisphere, in the centre of which was a small fibrous tough mass of dull red colour, the coagulum doubtless of blood effused at the period of the apoplectic seizure.†

Dr. Todd mentions several instances of hemiplegia with aphasia, the paralysis being, with one exception, always on the right side. In one case only the post mortem appearances are given, with Dr. Todd’s usual attention to details. The hemiplegia was explained by disease of the central ganglia, but there was likewise considerable softening (colourless) of the white substance of the hemisphere, where were numerous small vessels in a state of fatty degeneration, and also an abundance of compound cells. The grey matter was not stated as being affected.‡ Dr. Todd’s attention was evidently never given to the special consideration of speechlessness as a symptom of brain disease, and in one case, he says, “it was evident that very grave lesion had occurred, sufficient to inflict so severe a shock on the brain as to destroy the power of speech.”

Dr. Forbes Winslow, in his remarkable chapter on the “Morbid Phenomena of Speech,” has entered with con-

* Clinical Medicine, p. 433. † Practice of Physic, Vol. ii., p. 511.

‡ Clinical Lectures on Diseases of the Brain, p. 247.

siderable detail into the question of the cerebral localisation of that faculty, illustrating the subject by allusion to a number of highly interesting cases, from which I have selected the following for brief allusion.*

A gentleman had an attack of apoplexy, consequent upon extravasation, the effects of a rupture of one of the cerebral vessels. He rallied, had a second attack, and again recovered. At the expiration of eighteen months a third attack ensued, when he became hemiplegic, and entirely lost his speech, and died in two months, having never uttered a vocal sound. At the examination, a small patch of softened brain was found in the pons Varolii, surrounding a clot which had been deposited on that ganglion. The other portions of the cerebral mass were apparently in a healthy condition, with the exception of some of the vessels being closed by deposits of bony matter.

A patient suffering from cancer of the uterus, which completely prostrated her, was suddenly seized, in the middle of the night and without any known cause, with an almost complete dumbness, which only enabled her to say "yes, yes," to all questions, whether they were contradictory or not. She retained possession of her intelligence, for she was neither paralysed nor insane. If she was requested to write what she had to communicate, she traced an assemblage of letters on the paper to which no meaning could be attached.

A clergyman, whilst reading the Litany, became suddenly speechless, without losing his consciousness, and was obliged to leave the church. He continued in the same state for an hour, being perfectly sensible of everything that was going on about him, and was able to write on a piece of paper a request that a certain physician should be immediately summoned. Two days after the loss of speech he was in a state of apoplectic coma, in which he died, no autopsy being permitted.

A gentleman, after many premonitory warnings, fell down in a fit, described as a combination of epilepsy and apoplexy, and for two days his life was in imminent danger; he, however, partially recovered, but with an inability to give anything like a clear expression to his wishes, what he said being quite unintelligible. He was able to pronounce words with great clearness, but they were sadly misplaced and transposed. By adopting the course of writing down what he

* On Obscure Diseases of the Brain, p. 497.

said, and then re-arranging the words in their proper order, his family were able clearly to understand his wishes. This state of brain and impairment of speech continued with slight intermission for nearly a fortnight, accompanied by acute pain in the occipital region. Abstraction of blood by cupping was followed by a decided mitigation of the symptoms. Mercurial purgatives were administered, the head was shaved, and counter-irritation applied behind the ears. At the end of five days he was able to converse coherently for a few minutes, but if he continued in conversation beyond that time, he again began to jumble and misplace his words. Minute doses of bichloride of mercury, in combination with tincture of cinchona, were subsequently administered with the greatest benefit, and in the course of a few months he entirely recovered.

Dr. Winslow adds that in fifty-four cases he has detected after death a considerable amount of disease of the anterior lobes without being accompanied during life with any perceptible loss of speech. In one case of softening of the cerebellum, the principal symptom was great perversion of the faculty of speech, without complete loss of power over this function, the anterior lobes being free from all organic alteration. In another case a large encysted abscess was discovered at the base of the brain, which produced during life the most singularly remarkable modification of the faculty of speech, the patient's misplacement of words being at times most eccentric and grotesque, and the power of articulation seeming occasionally to be entirely lost. In a third case a tumour of a malignant character was found in the cerebellum, which produced complete loss of speech.

The next observation to which I shall direct attention is one of extreme interest from its exceptional character, being a case of impairment of the faculty of articulate language from *disease of the spinal cord*, reported by Dr. Maty in the third volume of the London Medical Observations and Inquiries.

The Count de L., aged 35, was overturned in his coach from a high and steep bank; the accident was followed by no head symptoms, and he soon recovered from the effects of a severe contusion of the left shoulder, arm, and hand, and went through the fatigues of a military campaign. Six months afterwards, however, weakness of the left arm occurred, with difficulty of articulating certain words. Some months later the difficulty in speaking and in moving the left

arm increased ; the limb eventually became withered, and he could scarcely utter a few words, and those only monosyllables. During all this time the Count continued able to read and write, and spent his time in the most abstruse subjects, and up to the period of his death, which occurred four years after the accident, he preserved to the last the highest intellectual power. The description of the autopsy is too minute to admit of its being given here in detail ; the medulla oblongata was enlarged by one third, and more compact than natural, and the spinal membranes were very tough. The spinal marrow itself had acquired such a solidity as to elude the pressure of the fingers, and to offer the resistance of a callous body, this peculiarity being most apparent in the cervical portion.

The following unique case of aphasia, resulting from the rupture of a vessel within the orbit, was lately communicated to the Norwich Pathological Society by my colleague, Dr. Copeman, who had extracted it from the private notes of the late Mr. Norgate.

Sarah Hase, æt. 29, a spare, slender woman, in good general health and in the last stage of pregnancy, was seized with an acute, lancinating pain in the left side of the head and temple, extending deep into the orbit ; the eyelids became swollen, and she experienced a throbbing and constant "boiling" just above the brow. At five o'clock the following morning, with very little effort and before the midwife could arrive, she was delivered of a child. Soon afterwards the pain and distension caused by pressure on the ocular globe from behind became almost intolerable ; and it now became quite evident that a vessel of some size at the back of the orbit had been ruptured. Leeches were now plentifully applied around the part, followed by cold lotions. In the evening of the same day the eye was noticed to be protruding and nearly immovable from pressure, and it was now that for the first time Mr. Norgate noticed a remarkable hesitation in answering questions, although she was perfectly conscious ; she occasionally employed one word for another, mistook letters, and dropped syllables in articulating words. The next day the eyeball was more perfectly fixed, the agony was extreme, and although the cornea was then clear, the retina was amaurotic, and the iris quite insensible to light, vision of course being lost. She now confused her words so much as to be quite unintelligible to those around her ; she tried to make it understood by signs that she wished to write,

and in attempting to do so she invariably made use of parts of words. Omitting the daily details, suffice it to say that after scarification of the conjunctiva and other appropriate treatment, there was a little relaxation of pressure; the globe was less distended, and the power of expressing herself began to improve; in proportion as absorption proceeded, so the power of language increased, and in a few days she could articulate and converse as well as ever. This patient told Mr. Norgate afterwards that she comprehended everything that was said during the period in which she had been unable to express herself.

The above case is, I think, unique of its kind, although a somewhat similar one is quoted by Van der Kolk, from the "*Gazette Medicale de Paris*," of September 5th, 1857, where it is stated that in consequence of a wound, a bony splinter from the os frontis above the left eye compressed the anterior part of the hemisphere, subsequently causing loss of speech, which faculty was completely regained after the removal of the fragment by the trepan.

I would call attention to the fact that the inference to be drawn from these two cases is not in favour of the theory of M. Broca, but rather favours the system of Gall, who located the faculty of language in that part of the anterior lobes which lies above the orbital plates; for it was clearly this region that was the seat of pressure in both cases, and not the neighbourhood of the so-called Broca's region.

The next case I shall mention was also observed by a Norwich pathologist—my colleague, Mr. Cadge, having at a recent meeting of our Pathological Society, related the following case of a cerebral tumour sufficiently large to take the place of the left anterior lobe, speech continuing unaffected to the last.

C. D., æt. 50, was a strong stout man, remarkable for his physical power and invariable good health, and moderately temperate in his mode of life. Although not an ill-tempered or violent man, he had a habit of wrangling with, and abusing those in his employ; he was addicted, in fact, to a kind of chronic vituperation, which meant little, but sounded a good deal, for he had a loud voice and a copious vocabulary. The first indication of his illness that attracted notice, was that he ceased to upbraid, and became suspiciously good-humoured and quiet; this change in his manner occurred only six months before his death. The next symptom was violent but

intermitting headache; at first it was almost confined to the back of the head, afterwards it passed over to the forehead, but was never restricted to one or other side of the head; he also had a constant singing in the left ear. His sight soon became defective, and about three months before death he became totally blind, large retinal extravasation being observable by the ophthalmoscope. As the sight failed, his mind and faculties began to waver, and he became droll and almost childish. At no period of his illness was there any continued paralysis; on one occasion he staggered and fell whilst walking, but quickly recovered. Other than this, there was no loss of power or sensation; his voice was clear and his articulation distinct. Six months from the commencement of his illness he suddenly became apoplectic and comatose, and died in twelve hours. Necropsy:—The cerebral membranes were adherent; there was nothing like excessive congestion in any part, nor was there more than a little excess of fluid either in the ventricles or at the base of the brain. There was some trouble in peeling off the membranes from the convolutions; this being as much or more due to over softness of the latter than to unnatural adhesion; nothing like inflammation or active congestion was present. Hidden in the left anterior lobe of the brain was a tumour of about the size of a hen's egg; the tissue around it being considerably softened, it was not easy to ascertain very precisely its exact limits and relations. It seemed to occupy the left lobe chiefly, encroaching slightly on the right across the corpus callosum; behind it pressed on the corpus striatum, and was visible in the anterior cornu of the ventricle; in front it encroached upon the grey matter of the convolutions, but did not reach the surface; below it rested on the root of the orbit and on the olfactory nerve. The tumour itself was of softish consistency, not unlike tubercular matter; in some parts it had almost a gelatinous aspect, and under the microscope nothing was visible but a multitude of compound cells and free nuclei, and a few large corpuseles, but no fibrous structure whatever.

After stating that the inference was that the tumour was malignant, (its rapid development encouraging that view,) Mr. Cadge asks, why a tumour in the anterior lobe should cause blindness, as there was no pressure on, or inflammation around, the optic nerves, nor were the optic thalami or tract at all interfered with? He also asks how it is that there was neither aphasia nor paralysis of the right side? This last

question of Mr. Cadge I shall endeavour to answer in a subsequent part of this essay, when analysing the mass of evidence I have collected with the view of testing the value of the different statements that have been made as to the seat of the faculty of speech.

Mr. Dunn, whose researches in physiological psychology are so well known, has published several very interesting cases of loss or impairment of speech, to one only of which I shall briefly refer.

A young girl, aged eighteen, accidentally fell into a river, from which she was extricated in a state of suspended animation; prompt assistance being rendered, sensibility was restored, and she eventually recovered. Ten days afterwards she was seized with a fit, lay in a state of complete stupor for nearly four hours, on rallying from which, it was observed that she had lost the power of speech and hearing, and was also deprived of the senses of taste and smell, and for three months her only medium of communication with the external world were the senses of sight and touch. About three months afterwards, an incident occurred in the family which roused her sensibility and suddenly brought into play one of her suspended powers—the faculty of speech. Seeing her mother in a state of excessive agitation and grief, she became excited herself, and in the emotional paroxysm of the moment, she suddenly ejaculated, “Wh—a—t’s the mat—ter?” From this time she began to articulate a few words, but she neither called persons nor things by their right names. Nine months later, under sudden and overwhelming emotional excitement, she fell into a state of insensibility of many hours’ duration, but which proved critical and sanatory, for she awoke in possession of her natural faculties and former knowledge; her speech was restored, but she had not the slightest recollection of anything that had taken place during the interval of the twelve months that her faculties had been suspended.

Beyond all doubt the observer who has done the most in this country to elucidate the subject of cerebral loss of speech, is Dr. Hughlings Jackson, who, in the London Hospital Reports for 1864, has given the details of thirty-four cases of hemiplegia with loss of speech. Of these cases, the paralysis was observed thirty-one times on the right side and three times on the left; the heart was more or less affected in twenty instances (valvular disease existing in

thirteen cases); in four cases there was loss or defect of smell. I much regret that want of space will not allow me to dwell on this most interesting communication; there are, however, two cases in this collection to which I must briefly allude. One is a case of *aphasia with left hemiplegia* occurring suddenly in a gentleman 64 years of age, who fourteen years before had received a very severe blow in the right occipital region, which had left him ever afterwards deprived of the power of smell and taste. In the other case the patient, although continuing aphasic, had recovered the power to *swear*; which Dr. Jackson explains on the principle, that ejaculatory expressions are prompted by the emotions and not by the will; he also considers that oaths and similar interjectional expressions are not parts of speech in the broad sense in which the words that form them are, when used to convey intellectual propositions.

The Medical Journals of the last few years contain a variety of interesting cases, to the salient points of which only a passing allusion can be made.

In the "Medical Times" of July 9th, 1864, a case is recorded of a man aged twenty-one, who was admitted into the Middlesex Hospital, under Dr. Stewart, with *left hemiplegia* without loss of speech, the attack having been preceded by choreic movements of the left arm and leg. A week later he was suddenly seized with paralysis of the *right* side, with loss of speech, consciousness however being retained. After death both middle cerebral arteries were filled with fibrinous plugs and semi-coagulated blood; at each end of the Sylvian fissure was a mass of diffuent brain substance, of about the size of a walnut.

In the "British Medical Journal" for Dec. 14, 1867, Dr. Bastian reports a case of right hemiplegia with aphasia, where after death the arteries at the base of the brain were all notably diseased and contained large white calcified patches at intervals; the left hemisphere showed very many patches of red softening, which were almost always strictly confined to the grey matter of the convolutions, the principal patches of softening being met with in the *third or inferior frontal convolution*, in a portion of the adjacent ascending parietal,* near its commencement, and in the superior frontal. The great mass of the white matter of the hemisphere appeared healthy and of normal consistence, as also the

* I presume Dr. Bastian means the posterior or ascending frontal.

central ganglia, pons, and medulla. The heart was large, weighing eighteen ounces; the aortic valves and a portion of the great tongue of the mitral, showed a very early atheromatous change.

One of the most recent observations that has fallen under my notice is that recorded by Dr. Simpson, in the "Medical Times" of Dec. 21, 1867, as a case of "*Extensive Lesion of the left inferior frontal convolution of the cerebrum without aphasia.*" W.M., æt. 62, was admitted into the Gloucester County Asylum, in February, 1857, and had been subject to epilepsy from his early youth; he never had an apoplectic attack as far as could be ascertained, nor had he at any time suffered from loss of speech. During the ten years he was under observation in the asylum, he had no brain symptoms beyond those ordinarily associated with epilepsy, no paralysis, and no impairment of speech. He died in November, 1867, of bronchitis. Autopsy:—Calvarium thick and heavy; cranium unsymmetrical, being elongated in the left oblique diameter. Dura mater non-adherent and healthy; arachnoid opaque throughout, but more particularly on the upper parts of both hemispheres; pia mater normal. The grey matter was somewhat atrophied, of firm consistence, but paler than normal; white matter also atrophied, and the interspaces and ventricles filled with serum. Both orbital divisions of the frontal lobes were indented, from undue prominence of the upper walls of the orbits. On the left side, and implicating the *posterior part of the third or inferior frontal convolution*, a large depression existed which appeared to be the remains of an apoplectic clot; it was of irregular shape, about an inch and three-quarters in its antero-posterior, and an inch and a half in its transverse diameters; extending internally to within five lines of the olfactory bulb, and in front to within an inch of the anterior margin of the hemisphere; it was deepest in the centre, where it measured half an inch from the general line of surface. The brain tissue was stained of a brownish-yellow colour, and there was considerable puckering, with induration round the margins of the depression. Microscopical examination showed distinct feathery crystals of hæmatoidin. The cortical substance was greatly thinned, being reduced to a mere line in the centre of the depression; the island of Reil appeared healthy, and the other parts of the brain presented no great deviation from the normal standard; the cerebral arteries were slightly atheromatous. Weight of encephalon, 42½ oz.

These three cases, the leading features only of which I have just described, are of extreme interest from the circumstance that in all of them the clinical history is completed by a minute and well recorded description of the post mortem appearances. The first case is remarkable from the fact that the patient possessed the power of speech in its perfect integrity whilst the paralysis was confined to the *left* side; but, having to a great extent recovered from this first attack, a sudden invasion of *dextral* paralysis was immediately followed by loss of speech. The second case, that of Dr. Bastian, will be claimed by M. Broca and his advocates in support of their theory as to the localisation of speech, for there is a high probability that the diseased action may have commenced in the third or inferior frontal convolution and its neighbourhood, as the greatest amount of softening was observed in this region; another interesting feature in the case was the existence of complete hemiplegia with only disease of the convolutional grey matter to account for it. This remarkable communication, which is written in Dr. Bastian's usual clear and lucid style, is well worthy of a careful study, being pregnant with original thought and the results of philosophical research. The case of Dr. Simpson is unique, and cannot be dismissed without a word of comment. Here there was disease of the posterior part of the third frontal convolution, (the exact region of Broca,) without any impairment of speech. I have already mentioned cases of aphasia where the frontal convolutions were all described as healthy, and I shall have others to record, which have occurred under my own immediate observation; but hitherto we have had no example of the converse condition, that is, *disease of the third frontal convolution without lesion of speech*, and it has even been stated that there is no case on record in which positive disease of this precise spot existed with integrity of speech.

Our northern neighbours, the Professors of the "modern Athens," have contributed their full quota to this branch of pathology, Dr. Sanders and the late Dr. Scoresby Jackson having each recorded a case with autopsy, more or less corroborative of Broca's theory.

The subject of Dr. Sanders' case was a woman aged 43, who was admitted into the Royal Infirmary at Edinburgh, on November 16th, 1865, with incomplete paralysis of the right side, defective speech, and loss of the

memory of words. Without following Dr. Sanders in his detailed account of the clinical history of this case, suffice it to say that two days after admission the patient complained of pain in the *left* leg, with impaired motion and anæsthesia; signs of obstruction of the left femoral artery shewed themselves, and gangrene of the corresponding limb occurred, from the effects of which she died about two months from the date of her admission. Autopsy:—The right hemisphere presented no lesion. On carefully examining the left hemisphere, *the posterior part of the inferior left frontal convolution*, where it forms the anterior margin of the fissure of Sylvius, together with a small portion of the adjoining orbital convolution, was observed to be collapsed, and depressed below the natural level. The flattened and depressed portions felt soft and fluctuating to the touch, and on cutting into the softened part, the grey matter was found to be thinned off from within, and the white cerebral substance was completely softened and eroded, presenting an appearance like dirty cream. The softening extended inwards to the immediate neighbourhood of the corpus striatum, without, however, involving it. The other convolutions of the anterior lobe were not affected, but there existed a separate softening near the posterior extremity of the fissure of Sylvius. The corpora olivaria were normal, and there was no other lesion of the encephalon. There was no embolism in the cerebral arteries, but there was a little thickening in the wall of the artery of the left Sylvian fissure.*

In Dr. Scoresby Jackson's case, the subject of it, James A., 48 years of age, was thrown from a van and received a wound on the left temple. This accident did not prevent him from working, but he ever afterwards complained of a pain in the head; and two months after the injury he was suddenly seized with right hemiplegia and aphasia, and died seven weeks later. Autopsy:—The heart was of natural size, and on the mitral valve were numerous vegetations, and loose fibrinous masses. The vessels at the base of the brain were atheromatous at several points, and there was embolism in some of the branches of the left middle cerebral artery. There was softening of a considerable portion of the left

* Since the above lines were written I have been favoured with a private communication from Dr. Sanders, in which he tells me that his later dissections tend to show that in speech palsy it is the island of Reil that is at fault rather than Broca's convolution. For the details of cases published by Dr. Sanders in support of this view, see *Lancet* for June 16th, 1866, and *Edinburgh Medical Journal* for August, 1866.

hemisphere, being most advanced in the island of Reil and in the posterior part of the third frontal convolution, the anterior end of the same gyrus not being involved.*

In the report of the Edinburgh Asylum for 1866, Dr. Skae speaks of a case of right hemiplegia where the patient had lost the power of all articulate speech, except the words "aye, aye," and at whose autopsy, an effusion of blood was found in the *left posterior lobe of the brain*.

Dr. Gairdner, of Glasgow, has published an extremely interesting case of epileptic (?) seizure, followed by a speechless and somewhat cataleptic state, without coma or evident paralysis. There was recovery of the intelligence to a considerable extent, but with continued aphasia, death ensuing in ten weeks during an epileptic paroxysm. This patient, although unable to express himself in writing, was able to copy handwriting set before him with tolerable accuracy. The necropsy, which was made with great care, revealed no cerebral lesion whatever beyond general and diffused congestion of the vessels of the pia mater, the smaller ones of which were surrounded with slight granular deposit.†

Medical science is indebted to the physicians of the "sister island" for much valuable information communicated by them during the last few years, in reference to cerebral loss of speech.

In the *Dublin Quarterly* for February, 1865, is a valuable paper by Dr. Banks, in which he mentions the following very curious case.

A gentleman, now aged 54, was eight years since attacked with paralysis of the right side and aphasia. At first the loss of speech was complete, but after twelve days he could say a few words. Before his attack he was a ripe scholar, and had taken much pleasure in reading the best classical authors; but when his stock of words had increased so as to enable him to converse a little on ordinary subjects, it was observed that his memory had quite failed him with respect to Greek and Latin. For six years he continued without improving to any considerable extent, but still he was gradually acquiring new words. For the next two years his progress was more rapid; he laboured hard, and almost learned over again all that he had forgotten, so as to be able to read his old favourite

* Edinburgh Medical Journal, February, 1867.

† Glasgow Medical Journal, May, 1866.

classical authors once more. The accomplished Trinity College Professor adduces this case to prove that, even in aphasia with paralysis, the mind may remain unclouded, and the power of speech, even after years, may be re-established.

At the annual meeting of the British Medical Association held at Dublin last August, I had the pleasure of reading a paper on the "Localisation of the Faculty of Speech," after which an interesting discussion took place, in which Professor Gairdner, Drs. Lyons, Hayden, Lalor, Gibson, &c., took a part, and some extraordinary cases of the sudden loss of speech, and of the intellectual results that followed, were mentioned.

During my visit to Dublin, Dr. Lyons kindly called my attention at the Hardwicke Hospital to a case of aphasia occurring as a complication of cerebro-spinal arachnitis.

The subject of it, John Oyden, a delicate boy, aged eleven years, was admitted into the hospital on May 30th, being reported three days ill. His symptoms were those of well marked cerebro-spinal arachnitis, of pure type, and intense degree. The head was much contracted; the face was flushed; the pupils were dilated; and the patient complained of much acute pain in the head and back of the neck, which extended down the spine for a considerable distance. On June 3rd, the usual eruption made its appearance. On June 25th the patient became affected with aphasia, the right side being at the same time paralysed. He remained in this state for many days; the only words he was able to utter were "day, day," which was his answer to all inquiries. In the beginning of July he rallied a good deal and regained the power of speech, but on August 27th he again became the subject of aphasia, in which state he died.*

Dr. Popham, of Cork, in a very elaborate paper in the *Dublin Quarterly Journal*, mentions the following case, which he says bears on M. Broca's views.

Mary Murphy, aged sixty, was admitted to the Union Hospital with right hemiplegia and impaired speech. The memory of words was very defective, and the articulation confused; for "thank you, Sir," she said "fancy sell," and being asked what her husband, a pedlar, sold, she replied

* The above very meagre report of this remarkable case is taken from the British Medical Journal of September 28th, 1867; it is to be hoped, however, that Dr. Lyons will eventually favour us with a detailed account of this most interesting and exceptional case.

“procties and pudding pans,” which Dr. Popham found out meant “brooches and bosom pins.” She eventually died of pneumonia, when the following appearances were observed at the post-mortem examination. The heart was covered with fat; the mitral orifice was narrow, its margins ossified, and there were some vegetations on the auricular surface. There was considerable effusion under the arachnoid membrane. On careful examination of the left hemisphere, the convolution of Broca was softer in consistence than the neighbouring parts, and the remains of an apoplectic cyst, of the size of an almond, and empty, was situated close to the anterior third of the corpus striatum, and running parallel to its course.

I now arrive at the consideration of the labours of our American cousins, beginning with Dr. S. Jackson, of Pennsylvania, who records the following curious case.

The Rev. Mr. —, æt. 48, endowed with intellectual powers of a high order, of a sanguine temperament, with latterly a strong tendency to obesity, having exposed himself to the influence of the night air, received a check to the cutaneous perspiration. The next morning he awoke with a headache, and when a friend went into his room to enquire after his health, he was surprised to find Mr. R—— could not answer his questions. Dr. Jackson having been summoned, found the patient in full possession of his senses, but incapable of uttering a word; the tongue was not paralysed, but could be moved in every direction; all questions were perfectly comprehended and answered by signs, and it could be plainly seen by the smile on the countenance, after many ineffectual attempts to express his ideas, that he was himself surprised, and somewhat amused at his peculiar situation. The face was flushed, the pulse full and somewhat slow, and to the inquiries if he suffered pain in the head, he pointed to his forehead as its seat. When furnished with pen and paper, he attempted to convey his meaning, but he could not recall words, and only wrote an unintelligible phrase, “Didoes doe the doe.” Forty ounces of blood were drawn from the arm, and before the operation was completed speech was restored, though a difficulty continued as to the names of things, which could not be recalled. The loss of speech appearing to recur in fifteen minutes, ten ounces more blood were abstracted, and sinapisms supplied to the arms and thighs alternately.

These means were speedily effectual, and no farther return of the affection took place.

Dr. Jackson, in analysing this case, calls attention to the following facts. Firstly, sudden suppression of the cutaneous transpiration, succeeded by cerebral irritation and determination of blood to the brain: secondly, frontal pain immediately over the eye: thirdly, perfect integrity of the sensations and voluntary movements: fourthly, the general operations of the intellect undisturbed; ideas formed, combined, and compared; those of events, of time, recalled without difficulty: fifthly, loss of language or of the faculty of conveying ideas by words though not by signs; this defect not being confined to spoken language, but also extending to written language.*

Dr. Hun, of Albany, mentions the case of a blacksmith, æt. 35, who, before the present attack, could read and write with facility, but who had been labouring for several years under a disease of the heart. After a long walk in the sun, he was seized in the evening with symptoms of cerebral congestion, remaining in a state of stupor for several days. After a few days he began to recover from this condition, and understood what was said, but it was observed that he had great difficulty in expressing himself in words, and for the most part could only make his wants known by signs. There was no paralysis of the tongue, which he could move in all directions. He knew the meaning of words spoken before him, but could not recall those needed to express himself, nor could he repeat words when he heard them pronounced; he was conscious of the difficulty under which he was labouring, and seemed surprised and distressed at it. If Dr. Hun pronounced the word he needed, he seemed pleased, and would say, "Yes, that is it," but was unable to repeat the words after him. After fruitless attempts to repeat a word, Dr. Hun wrote it for him; and then he would begin to spell it letter by letter, and, after a few trials, was able to pronounce it; if the writing were now taken from him, he could no longer pronounce the word; but after long study of the written word, and frequent repetition, he would learn it so as to retain it and afterwards use it. He kept a slate, on which the words he required most were written, and to this he referred when he wished to express himself. He gradually learned these

* American Journal of Medical Sciences, February, 1829, p. 272.

words and extended his vocabulary, so that after a time, he was able to dispense with his slate. He could read tolerably well from a printed book, but hesitated about some words ; when he was unable to pronounce a word, he was also unable to write it until he had seen it written ; and then he could learn to write as he learned to pronounce, by repeated trials. At the end of six months, by continually learning new words, he could make himself understood pretty well, often, however, employing circumlocution, when he could not recall the proper word, somewhat as if he were speaking a foreign language, imperfectly learned.

Dr. Hun infers, from what precedes, that there is a portion of the brain connected with language or the memory of words, as distinct from the memory of things and events ; and that there is another portion on which depends the co-ordination of the movements of articulation. It will be observed that in the above case, the impression made on the acoustic nerve was not sufficient for rendering the articulation of the word possible, but that it was necessary that an impression should be made upon the optic nerve. Dr. Hun asks whether this can be explained by the supposition of a more intimate connexion between vision and articulation, or by the fact that the impression on the acoustic nerve is transient, whilst that on the optic is more permanent.*

Quite recently, Dr. Austin Flint, in giving an account of six cases which had fallen under his observation, expresses his strong dissent from the doctrine of the localisation of the faculty of speech in the left hemisphere, and he thinks that anatomical researches may show why lesion of speech is a more constant accompaniment of dextral than of sinistral paralysis.

Having in the preceding pages endeavoured to give a brief sketch of the labours of the principal authors in various parts of the world who have written on the subject of loss or impairment of the faculty of articulate language, I shall, in the next number, give the results of my own personal experience, as embodied in a series of important cases which have fallen under my own immediate observation.

(To be continued.)

* American Journal of Insanity, April, 1851.

OCCASIONAL NOTES OF THE QUARTER.

The Superannuation Clause of the Lunacy Acts Amendment Act, 1862.

The recent retirement of the medical superintendents of the East Riding and Cambridge County Asylums, under grave disease, the result of over exertion of mind and body in the performance of their arduous duties, and the retirement of the medical superintendents of the Somerset and Oxford Asylums, after an honourable service in each case of twenty years, affords an opportunity of again directing attention to the provisions of this clause, and of recapitulating the steps which have been taken by this Association to direct attention to its unfair arrangements.

In the *Journal of Mental Science* for October, 1862, in an analysis which we gave of the provisions of the *Lunacy Acts Amendment Act, 1862*, the following remarks were made on this clause (sec. 12):—

The 12th section will prove a great disappointment to the officers of Asylums, since it refers to their superannuation, and since the latter part of it contains a provision which more than neutralises the good intentions of the Clause as it originally stood. The Clause as it stood, for which the officers of asylums were indebted to Lord Shaftesbury, reduced the term of service for which a pension could be granted to them from twenty years to fifteen years, and provided that in calculating the amount of superannuation, regard may be had to the lodgings, rations, or other allowances enjoyed. In committee the following rider was attached, under which we have no hesitation in saying that no superintendent will ever enjoy a superannuation until he has a foot and a half in the grave, or unless he has the good fortune to serve in some small homogeneous county in which the visitors completely rule the courts of session, and we fear we may also add, in which he has been more studious to make friends than to do his duty. The rider runs thus:—"Provided that no annuity by way of superannuation granted by the visitors of any asylum under the provisions of this Act or of the Lunacy Act, chapter ninety-seven, shall be chargeable on, or payable out of, the rates of any county until such annuity shall have been confirmed by a resolution of the justices of such county in General or Quarter Sessions assembled."

At the annual meeting of the Medico-Psychological Association, held in 1863, under the presidency of Dr. Skae, Dr. Kirkman brought this subject forward, and a Committee was appointed, consisting of Dr. Kirkman, Dr. Robertson, Dr. Sheppard, and Dr. Maudsley, to consider the provisions of this clause, and to submit to the Association suggestions for placing the retirement clause on a more satisfactory footing.

SUPERANNUATION ARRANGEMENTS.—Dr. Kirkman proposed—"That a committee be appointed from this Association, with the definite object of obtaining a reversal of the latter portion of the 12th section of the Lunatic Asylums Amendment Act, and to press for legislative sanction to satisfactory superannuation arrangements." The section of the Act to which he referred was as follows:—"Provided that no annuity by way of superannuation, granted by the visitors of any asylum under the provisions of this Act, or of the Lunacy Act, chapter 97, shall be chargeable on, or payable out of the rates of any county, until such annuity shall have been confirmed by a resolution of the justices of such county in general or quarter sessions assembled." The concluding proviso he regarded as most cruel, negating the use of the clause altogether. Speaking personally, having been connected with public asylums for thirty years, he could not well be refused a pension, but to secure it it would be necessary that the subject should be discussed at four sessional meetings. He had no doubt that he could command the undivided interest of the whole of his house committee; but objectionable remarks and slurs might be thrown out at the sessional meetings, which would be extremely painful. Any one fitted to be an asylum officer must necessarily possess a sensitive mind, and the harsh remarks occasionally made in magisterial sessions would be likely to wound his feelings. He thought the enactment ought to be compulsory, and the objectionable clause removed. At the present time a beloved member of the Association was suffering from physical injury received in the discharge of his duty, and it would be a most unfair thing if a gentleman in his position were subjected to unpleasant remarks about his superannuation allowance.

Dr. Robertson seconded the resolution, and said that, as the section originally stood, the question of superannuation was left to the visitors; but a very active member of the House of Commons succeeded in committee in getting the objectionable rider added, which literally made the preceding portion worthless. Thus, he had no doubt that any reasonable reward for his services in Sussex would be gladly given by the committee of visitors, but he should exceedingly object to be made the subject of discussion at sessional meeting in the two divisions of the county. He had known the most trifling matters, involving the expenditure of £50, made the subject of lengthened discussion there; and if a proposal were made to allow a medical superintendent three or four hundred a year, most painful remarks to the feelings of a

gentleman would be made as to his physique, his general state of health, whether more work could not be ground out of him, and the like. He had no doubt that great benefit would be derived by the appointment of a small committee to consider the question carefully, and communicate with the Commissioners and with some members of the House of Commons on the subject.

The following members were appointed:—Dr. Kirkman, Dr. Sheppard, Dr. Robertson, and Dr. Maudsley.—(Annual Meeting of the Association, 1863.)

On the 2nd Dec., 1863, this committee held an interview with the Commissioners in Lunacy, to whom they submitted the following memorandum:—

Memorandum submitted to the Commissioners in Lunacy by the Committee of the Medico-Psychological Association, on the Question of the Retiring Allowances to Officers and Servants of County Asylums, at an interview at their Office, in Whitehall Place, on the 2nd December, 1863.

At the annual meeting of the Association of Medical Officers of Asylums and Hospitals for the Insane, held at the Royal College of Physicians on the 9th of July last, a committee was appointed to consider the the arrangements made under the Lunacy Acts Amendment Act, 1862, for “the superannuation of officers in asylums.” This committee determined to seek the counsel and advice of the Commissioners in Lunacy on the subject, fully recognising the uniform desire and the efforts of the Commissioners to improve in every way the position and standing of the medical officers of the county asylums. The committee consequently authorised Dr. Robertson to convey their wishes to your secretary, and to solicit an interview, and they desire now to acknowledge the ready compliance with which you have met their request.

The Association feel grateful for the liberal spirit shown by the Legislature towards them in the provisions of the Act in question, by which the period of service has been reduced from twenty to fifteen years, and the important proviso made that the value of the lodgings, rations, and other allowances, may be had regard to in fixing the retirement to be granted.

The Association consider these provisions fair and liberal, and they desire to acknowledge their obligations to the Commissioners, and specially to the Earl of Shaftesbury, for the practical interest thus shown in their welfare.

The Association feel, however, that this privilege has been in a great measure neutralised by the addition of the clause requiring the sanction of the quarter sessions to the proposed new retirement allowances. They unanimously would rather have left the retirement clause of the 16 and 17 Vict., cap. 97, sec. 57, untouched, than have—

even with the more favourable terms—this appeal made to the quarter sessions.

The Association are content that the retirement should be at the discretion of the Committee of Visitors. The medical officers of the county asylums gladly trust herein the liberality of those under whose control they work, and who are competent judges of the value of their services. The case, however, assumes a very different aspect when the amount of the retirement is to be debated and fixed by the justices in quarter sessions. The frequent and unpleasant discussions on the prison and constabulary expenditure (which are directly under the control of the quarter sessions) are not encouraging.

The justices in quarter sessions are so little conversant with the detail arrangements of the county asylum that they are unable to enter into the extent of the claims of the medical officer to a liberal treatment in all pecuniary matters. Moreover the legitimate pressure for economy exerted by the ratepayers (of whose heavy burthens the Association are well aware) tends to place difficulties in the way of a satisfactory settlement of this question by the sessions.

The Association venture to think that if the approval of the Commissioners were required to any recommendation of the committee of visitors proposing a retiring allowance, and if the same could be made chargeable on the Consolidated Fund instead of on the county rate, a sufficient guarantee would be given to the public, and a relief afforded to the property rated for the county expenditure, while the claims of the Association would, they know, be fully and fairly considered by the Commissioners. It is in the remembrance of the Association that the late Chancellor of the Exchequer (the Right Hon. B. Disraeli) proposed thus to transfer the whole expenditure of the county asylums to the Consolidated Fund, as a just relief to the landed interests now bearing an unfair proportion of the cost incurred for the care and treatment of the insane poor.

The Association would refer to the recent retirement of Dr. Williams, in illustration of the unsatisfactory working of the present Act.

Instead of granting two-thirds of his salary and allowances, which would represent a sum of £450, the committee proposed to the sessions a retirement of £350 only. Yet, if ever there were a case in which the most liberal measure should have been meted out, Dr. Williams' was that case. His health was shattered by a severe accident received in the direct charge of his duties. Moreover his management of the Asylum had received the unvarying praise alike of the visiting justices and of the Commissioners during the seventeen years of his service. The Association cannot but think that such a precedent must act most unfavourably on their future prospects herein.

The Association had hoped to have been represented on this occasion by their revered ex-president, Dr. Conolly, and they grieve that severe bodily indisposition forbids his presence here to-day. In a letter

received from him by Dr. Robertson on the 1st instant, the following remarks bearing on this question occur:—

“It is fortunate that some of the Commissioners know what the nature of *life in a lunatic asylum* is. If the superintendent is qualified by his *disposition* as well as his acquirements for such a life and all its duties, *ten years* will do their work upon him.”

The Association would, in conclusion, quote the following remark on the clause in question, contained in an able analysis, by a distinguished author and physician, of the Lunacy Acts Amendment Act, 1862, in “The Journal of Mental Science” for October, 1862:—

“The 12th section will prove a great disappointment to the officers of asylums, since it refers to their superannuation, and since the latter part of it contains a provision which more than neutralises the good intentions of the clause as it originally stood. The clause as it stood, for which the officers of asylums were indebted to Lord Shaftesbury, reduced the term of service for which a pension could be granted to them from twenty years to fifteen years, and provided that in calculating the amount of superannuation, regard may be had to the lodgings, rations, or other allowances enjoyed. In committee, the following rider was attached, under which we have no hesitation in saying, that no superintendent will enjoy a superannuation until he has a foot and a half in the grave, or unless he has had the good fortune to serve in some small homogeneous county in which the visitors completely rule the courts of session, and we fear we may also add, in which he has been more studious to make friends than to do his duty. The rider runs thus:— ‘Provided that no annuity by way of superannuation granted by the visitors of any asylum under the provisions of this Act or of the Lunacy Act, chapter 97, shall be chargeable on or payable out of the rates of any county until such annuity shall have been confirmed by a resolution of the justices of such county, in general or quarter sessions assembled.’ ”

In thus submitting their views on this question of the retirement allowances to officers of county asylums, the Association desire at the same time to solicit the advice of the Commissioners as to the steps by which it may be practicable to place the matter on a footing more satisfactory to those whose pecuniary interests are so involved therewith.

London, December 2, 1863.

At the annual meeting of the Association, 1864, held under the presidency of Dr. Monro, the following report of the *Committee on the Superannuation Clause* was made:—

DR. ROBERTSON.—I may state that we had, in December, a meeting by appointment with the Commissioners, but they only gave us forty-eight hours’ notice, so that we were driven somewhat irregularly to

draw up a report which all the members, especially the chairman, had not seen. The Commissioners received us extremely well, and expressed their sympathy with us; they assured us that on the first occasion when any amended bill, or any consolidation of the lunacy laws, should be brought before the House, they would give careful consideration to our wishes, and endeavour to put the Superannuation Clause on a better footing. They then asked what suggestions we had to make, and, not having had the opportunity to discuss the subject before, I ventured on a suggestion of my own, which, however, did not meet with the approval of Dr. Kirkman. Our proposal now is, that you re-appoint us for another year, in order further to consider the question, and, should any legislation arise next year, to take steps in the matter.

DR. KIRKMAN.—The object of my seeking the appointment of the Committee was to render the Superannuation Clause a compulsory exactment, as I think anything short of that would not be satisfactory to the superintendents of the County Asylums. Under the circumstances, I should be glad of more time; and I think there should be an addition to the Members of the Committee, and that they should be more closely located, so that they might have more frequent opportunities of meeting.

DR. MAUDSLEY proposed the re-appointment of the Committee.

At the Annual Meeting in 1865, under the presidency of Dr. Wood, the Committee presented the following report:—

Report of the Committee on the Superannuation Clause (12th section of the Lunatic Asylum Amendment Act, 1862).

1. That after careful consideration of the whole question and communications with several superintendents of the County Asylums this Committee are of opinion that no settlement of the Superannuation Clause will be found satisfactory which does not—as throughout the military and civil services of the Crown—confer the retiring pension as a matter of right. With the other provisions of the 12th section of the Lunatic Amendment Act, 1862, this Committee are quite satisfied, and they regard as just and liberal that arrangement by which the period of service has been reduced from twenty years to fifteen years, and the proviso made that the value of the lodgings, rations, and other allowances, are to be had regard to in fixing the retirement. All that is farther necessary is, that the claim for two-thirds of the salary and allowances after fifteen years' service, and fifty years of age, be granted as a right, to be charged on the county rate, at the expiration of the period of service.

2. That as in the last report of the Commissioners in Lunacy an indication of early farther legislation in lunacy is given, they should be authorised to confer farther with the Commissioners thereon.

3. That, in order to watch such possible legislation, this Committee be re-appointed and authorised to employ, if necessary, legal aid to procure the revision of the 12th section of the Act of 1862, in the manner here indicated.

(Signed)

JOHN KIRKMAN.
C. L. ROBERTSON.
EDGAR SHEPPARD.
HENRY MAUDSLEY.

ROYAL COLLEGE OF PHYSICIANS,
July 13th, 1865.

The unequal operations of this Superannuation Clause are well marked in the cases we have referred to. Mr. Hill retired from the superintendence of the East Riding Asylum, after a service of 18 years, shattered in mind and body. The visitors placed the most liberal construction on their powers, and granted Mr. Hill an annuity of £575, being two-thirds of his salary, and the value of his allowances estimated by himself. The Sessions gave their approval. It is almost superfluous for us to observe how entirely Mr. Hill had merited this liberal measure.

Dr. Lawrence retired from the superintendence of the Cambridge Asylum in September last, after seven years' service, incapacitated for the further performance of his duties.

The Cambridge *Independent Press* of the 28th September thus reports the proceedings at the monthly meeting of the visitors:—

The Clerk read a letter from the Commissioners in Lunacy (a printed copy of which had been sent to each visitor previous to the meeting), referring to the unhappy mental state of Dr. Lawrence, medical superintendent of the Asylum, of whose permanent incapacity for the further performance of his duties, by reason of cerebral disease, the Commissioners were satisfied, and stating that, from reports and personal interviews with Dr. Lawrence, the Commissioners were of opinion that he exhibited unequivocal symptoms of incipient general paralysis; and expressing a hope that the visitors would consider the case as one for Dr. Lawrence's retirement upon a superannuity. After much discussion, the Board unanimously resolved to remove Dr. Lawrence from his office of Medical Superintendent; but, subject to the approval of the Quarter Sessions of the County and Isle, and of the Council of the Borough, they agreed to grant him an annuity of £50 for twelve years, if he so long lived, by way of superannuation, in consideration of his efficient services since September, 1860, whilst he was mentally capable.

The Cambridge Magistracy can hardly claim much credit for a liberal interpretation of the Superannuation Clause: to say this, is to say little on this shabby transaction. The Middlesex Sessions granted at Michaelmas an annuity of £50 to the Rev. William Bullock (late Chaplain of the Colney Hatch Asylum), who had retired, after a service of seven years, in ill health, at the age of 48 years. Here we have a very liberal interpretation of the act.

In contrast stands the recent decision of the visitors of the Oxford County Asylum, who simply refused to recommend to the Sessions for any pension whatever their late chaplain, the Rev. Mr. Pullings, who retired after a service of 21 years.

The Somerset Sessions have granted, on the recommendation of the visitors, a pension of £450 to Dr. Boyd, being little more than two-thirds of his salary, exclusive of his allowances. Mr. Ley, on his retirement from Littlemore, has just received £250 a year, or about one-half of his salary, exclusive of the allowances.

When Dr. Huxley retired, in 1862, from the superintendence of the Kent Asylum, after 15 years' service, the Sessions granted him £450, being about two-thirds of his salary, exclusive of the value of the allowances.

Dr. Williams, on his retirement from the Gloucester Asylum, received an annuity of £350, being little more than half his salary, not including the value of the allowances.

These illustrations of the unequal and capricious application of the present Superannuation Clause may suffice to support the claim which the Medico-Psychological Association has systematically urged for its revision.

It appears a hopeful and simple step towards placing the Superannuation Clause on a more satisfactory basis, to alter the clause, so as to remove from it the rider giving the Sessions a control in the question. In reverting to the provisions of the previous Superannuation Clause, which left the decision solely with the Committee of Visitors, a great step towards the desired end would be gained.

While the officers of Asylums demand, with much reason, that their superannuation should be made a matter of certainty, on the other hand the Visiting Justices claim a right to control the expenditure of the county. These contending interests can only be adjusted in each individual case by precedent, and by the strong influence which the honest performance of important and arduous duties rarely fails to com-

mand with those under whose supervision these duties are performed. Without impugning the opinion of the Committee of the Medico-Psychological Association that it would be the most satisfactory arrangement for officers of Asylums were their views adopted by the legislature, and the pension clause made obligatory, we yet venture to think that a not unsatisfactory conclusion will be arrived at, if in the present Session the objectionable clause, requiring for the grant of a pension the consent of the several Quarter Sessions of a county, be expunged, and the pension clause, with its liberal provisions of two-thirds of the salary and allowances after a service of fifteen years, be left to the uncontrolled discretion of the Committees of Visitors.

In all their other relations, as regards appointment, salary, allowances, leave of absence, &c., the position of the officers of the County Asylums is entirely at the discretion of the Committees of Visitors, and it is a bare act of justice here to record with what consideration and liberality the visitors of the English County Asylums have discharged their duties. It is hardly fair to suppose that in their final parting act the visitors will show to their Medical Superintendent less liberality than has invariably marked the intimate relations of past years; and we feel confident that were the superannuation left solely at the discretion of the visitors, without further reference to the Sessions, little or no cause of complaint would arise. In addition to the existing friendly guarantees of liberal treatment on the part of the visitors, the manifest intention of the legislature in reducing the period of service from twenty to fifteen years could not fail to be considered in any discussion of these claims by the visitors. The Select Parliamentary Committee on Lunatics in their report (27th July, 1860) make the following important statement:—"It would further seem desirable to your committee to reduce the time at which Committees of Visitors may grant superannuation allowances to their medical officers. Their duties are so peculiar, and such painful consequences are known to result from incessant intercourse with the various forms of this distressing disease, when prolonged for many years, that your Committee believe it would tend to greater efficiency of service, if the period, which stands at present at 20 years, were reduced to 15."

Should, therefore, in any possible amendment of the existing Lunacy Clause, the Superannuation Clause be amended so as to restore the entire control to the Committees of Visitors,

the writer of this "note" would feel satisfied of a reasonable, just, and liberal consideration of his own claims for a pension, should years or illness make the same desirable.

German Psychiatrie.

Like every other department of medicine, *Psychiatrie* is studied and followed out in Germany with a zeal and spirit of self-denial of which in England we have no examples.

The year 1867 has seen the appearance of two new quarterly journals of psychiatrie, published at the two rival seats of German power.

We have to acknowledge the courtesy of their respective editors in forwarding to us copies of the parts published, and we gladly add them to our list of exchanges.

I. The first new quarterly journal is edited by Professor Dr. Max Leidesdorf and Dr. Theodor Meynert, of Vienna,* and includes on its staff of writers the following teachers and others connected with the great Vienna school, viz:—

Dr. Benedikt, Docent der Elektrotherapie in Wien; Dr. Beer, Professor der gerichtl. Medicin und Kriminalpsychologie in Wien; Dr. Chrastina, Primar-ärzt des Versorgungshauses in Wien; Dr. Droste, Sanitätsärzt in Osnabrück; Dr. Duchek, Professor der medicinischen Klinik in Wien; Hofrath Dr. Franqué, Docent in München; Dr. Glatzer, Docent der Medicinal-Statistik in Wien. Dr. Hubrich, zweiter Arzt an der Kreis-Irren-Anstalt bei München; Dr. Joffe, Primar-Arzt an der Landes-Irren-Anstalt in Wien; Professor Dr. Köstel, Director der Drager-Irren-Anstalt; Dr. Lion, sen., königl. Kreiswund-Arzt in Berlin; Dr. Mach, Professor der Physik in Prag; Dr. Marasch und Dr. Mildner, Primar-Aerzte an der Landes-Irren-Anstalt in Wien; Dr. Maschka, Professor der gerichtl. Medicin in Prag; Dr. Meschede, zweiter Arzt an der Irren-Anstalt Schwetz; Hofrath Dr. Oppolzer, Professor der medicin. Klinik in Wien; Dr. Reich, Docent in Gotha; Dr. Rosenthal, Docent für Nervenkrankheiten in Wien; Dr. Schumacher, k. k. o. ö. Professor in Salzburg; Dr. Stern, Docent für klinische Propädeutik in Wien; Dr. Smoler, Docent in Prag; Dr. Tigges, zweiter Arzt der Irren-Anstalt Marsberg; Dr. Witlacil, Bezirksärzt in Wien; Dr. Wundt, Professor der Physiologie in Heidelberg.

II. The second new journal is published at Berlin, and is called the *Archiv für Psychiatrie und Nervenkrankheiten*, under the editorship of Professor Griesinger, of Berlin, in

* Under the title of—*Die Viertejahrsschrift für Psychiatrie, in ihren Beziehungen zur Morphologie und Pathologie des Centralnervensystems.*

conjunction with Dr. L. Meyer, professor der psychiatrie an der Universität Göttingen, and Dr. C. Westphal, privat-docent an der Universität Berlin.

Professor Griesinger promises to continue in this quarterly journal the effort he has already so successfully made elsewhere—to unite in one domain the study of mental disease and other disorders of the nervous system; he justly lays stress in his preface on the high promise of scientific work which the names of his two sub-editors—names both familiar to us in England—afford.

To Dr. L. Meyer, the successful introducer of the English non-restraint system in Germany, we look for further efforts in removing the ignorant objections against this practice, still so confidently paraded in the older German journals of insanity.

Again, Dr. Westphal's reputation as a sound pathologist and original observer of the morbid phenomena and pathological conditions of spinal paralysis and its relations to the so-called general paralysis of the insane, is already well known to the readers of the *Journal of Mental Science*. The first number of Professor Griesinger's journal fulfils these favourable prognostications. Without trenching on Dr. Sibbald's next report on the progress of German psychological medicine, we may refer to one singularly able paper by Dr. Westphal in the first number of this journal, containing a summary of our present knowledge of the general paralysis of the insane in its pathological relations.

We hope to publish a separate translation of this paper in our next number.

In former numbers of this journal have been published translations of Professor Griesinger's introductory lectures at Berlin in 1865 and 1866. His lecture for 1867 is published in the first number of his new journal, and reprinted by us in this number.

In a sketch by Dr. Westphal of the *Psychiatric Congresses* of the year—at all of which he assisted—the first place is assigned to the meeting of the *Medico-Psychological Association in London*. After giving a very fair summary of our proceedings, Dr. Westphal concludes his notice by remarking that “the work of the day finished, then followed a dinner in the famous Willis' Rooms, which, indeed, gave even more brilliant an impression of the Association than the meeting of the morning. At the toasts, the representative of German science then present (the writer), was not for-

gotten, and Dr. Robertson, the chairman, in a long speech, paid, in the most friendly terms, the highest homage to the work of the German School of Psychology. "I cannot," adds Dr. Westphal, "conclude this notice of the quarterly meeting of the British Medico-Psychological Association without a word as to the friendly hospitality which I received in England, and especially would I thank Drs. Robertson and Maudsley, the editors of the *Journal of Mental Science*, for their successful endeavours to further the objects of my scientific journey."

Two Medico-Psychological Societies are also in existence in Berlin. One, the *Medico-Psychological Association of Berlin*, under the permanent presidency of Professor Griesinger, and with Dr. Westphal as honorary secretary, meets monthly, and includes among its members alienists, medico-legal experts, and other professors of philosophy and medicine in the University. (The proceedings at their first six monthly meetings are reported in this first part of Griesinger's *Archiv für Psychiatrie*.) The other society, termed the *Psychological Society of Berlin*, has Dr. Lähr for its president, and Dr. Ideler for its secretary, and consists of the asylum superintendents of the provinces of North Prussia. A similar association exists for the Rhine provinces of Prussia.

In addition to the progress in psychiatry at Vienna, as indicated by the publication of Professor Liedesdorf's quarterly journal, we learn that our indefatigable honorary member, the Baron Mundy, M.D., began in the University of Vienna, in November, his second course of lectures on psychology. The subjects announced are—

- I. On certain points in the medical treatment of mental disease.
- II. On forensic psychiatry.
- III. On Lunatic Colonies, with the plans and drawings exhibited in the model cottage at the Paris Exhibition.

These interesting and able lectures have been published during the winter in the *Zeitschrift für gerichtliche Medicin, öffentliche Gesundheitspflege und Medicinalgesetzgebung* (*Wochenschrift für Aerzte, Wundärzte, Apotheker und Beamte*), and which, through the courtesy of Baron Mundy, have been regularly forwarded to this journal. They are full of original views and illustrations, drawn from his varied experience of lunatic life in many lands.

We would not forget to mention that the old German

quarterly journal, the *Allgemeine Zeitschrift für Psychiatrie und psychisch-gerichtliche Medicin*, continues to be carefully edited by Drs. Flemming, Roller, and Heinrich Laehr.

The *Irrenfreund*, under the editorship of Dr. Fr. Koster and Dr. Brosius (the latter the translator of Dr. Conolly's writings into German), is a small monthly sheet, which circulates in Germany a good deal of useful information culled from foreign sources.

A similar publication is the *Correspondenz-Blatt der deutschen Gesellschaft für Psychiatrie und Gerichtliche Psychologie*, edited by Med.-Rath Dr. Kelp, Reg.-Med.-Rath Dr. Eulenberg, Sans.-Rath Dr. Erlenmeyer, Director Dr. Otto.

The Sensorium Commune.

In a review of Dr. Maudsley's work on the "Physiology and Pathology of Mind," which appeared in the "British Medical Journal," the reviewer, while taking the author gently to task in regard to the sensorium commune, has complacently tumbled into a most strange blunder. So serenely unconscious, however, is he of his plight, that it would be a pity to take any notice of it, were it not that in doing so the opportunity offers itself of quoting some admirable observations by Prochaska. They were published in 1784, and those who read them now will judge whether the eminent physiologist has received all the acknowledgment due to him from subsequent writers.

The reviewer of Dr. Maudsley's book says:—"In the chapter on the sensory centres and sensation the author should have been more explicit as to what he regards as the 'sensorium commune proper,' or centre for the reception of the impressions made upon the nerves of common sensation. Though this is one of the disputed points of cerebral physiology at the present day, and one to which, by his plan, he was peculiarly bound, he evades the discussion of the question, and neither tells us whether he places it in the optic thalamus or in the pons Varolii." The sensorium commune the centre for the nerves of sensation! This is more than strange in a critic, and might have entailed a whipping on a schoolboy. Surely a thought of the meaning of the Latin words might have warned him of his danger. The sensorium commune is the common centre of sensory impressions—the aggregate of the sensory ganglia—not the

centre of common sensation. But the name has been so long used, and is so well understood by physiological writers, that the reviewer's blunder might pass comprehension were it not evident that he had learned it from Vulpian.

The following extracts, translated from Prochaska's work, entitled "*Commentatio de Functionibus Systematis Nervosi*," and published in 1784, will serve to show what clear ideas he had of the function of the sensorium commune, and to prove to the reviewer and to others who are under a like erroneous impression, that it is wrong to attribute, as is often done, to Dr. Carpenter the first recognition of sensorimotor movements :—

"What is the sensorium commune—what are its functions and its seat? External impressions, which are made upon the sensorial nerves, are propagated rapidly through their whole length to their origin, where, when they have arrived, they are reflected according to a certain law, and pass into certain and corresponding motor nerves, through which, again rapidly propagated even to the muscles, they excite certain and determinate motions. This place, in which, as in a centre, the nerves appropriated to sense as well as motion meet and communicate, and in which the impressions of the sensorial nerves are reflected upon the motor nerves, is called the sensorium commune—a term already received by most physiologists."

After pointing out very clearly that the cerebrum and cerebellum do not enter into the composition of the sensorium commune, which acts independently of them, Prochaska continues thus :

"The reflection of sensorial into motory impressions, which takes place in the sensorium commune, does not obey mere physical laws, where the angle of reflection is equal to the angle of incidence, and where action and reaction are equal, but it follows peculiar laws, written, as it were, by nature in the medullary pulp of the sensorium, which we can only know by their effects, and not discover by our imagination. Nevertheless, a general law, according to which the sensorium commune reflects sensorial into motor impressions, is our preservation; so that certain motory impressions follow external impressions hurtful to the body, producing motions tending to ward off and remove the source of injury; and, on the contrary, internal or motor impressions follow external or sensorial impressions beneficial to us, producing motions calculated to perpetuate that benefit."

He proceeds to enumerate a few out of many examples of such actions—irritation of the nostrils exciting sneezing; irritation of the mucous membrane of the windpipe exciting coughing; the closure of the eyelids when the eye is threatened; and the retraction of the limbs during sleep, when they are slightly pricked or pinched.

“As, therefore, the principal function of the sensorium commune consists in the reflection of sensorial into motor impressions, it is to be observed that this reflection takes place, whether the mind be conscious or unconscious of it. . . . All these actions arise from the organisation and physical laws proper to the sensorium commune, and are, therefore, spontaneous and automatic.”

At the time when Prochaska wrote, the function of the spinal cord as ministering to reflex action had not been specially discriminated, as was afterwards done by Marshall Hall, so that he includes under the sensorium commune the spinal cord. But it is evident that he clearly recognised and illustrated the reflex or automatic action of the lower nervous centres. When we consider, too, the acquired acts, or “secondary automatic” acts, as Hartley designated them, to which the spinal chord ministers, their complex nature and the definite ends which they accomplish, though we may not be disposed to agree with Pflüger that it possesses sensorial functions, we cannot but admit the exceeding difficulty of physiologically discriminating the reflex and the sensori-motor acts. Dr. Carpenter has been most successful in this country in making and illustrating this distinction. But those who are interested in the functions of the nervous centres, and desire to lay the foundations of just conceptions respecting them, should, above all things, study Prochaska’s work, and the works of others who followed him in Germany.

Prosecutions by the Lunacy Commissioners.

Not a year passes in which the Commissioners in Lunacy do not find themselves compelled to institute prosecutions against persons who have systematically violated the lunacy statutes. It is much to be regretted that medical men should so often be the culprits and the victims. But they have only themselves to blame; they wantonly violate a law most necessary for the protection of the insane, and it is the duty of the Commissioners in Lunacy stringently to enforce the provisions which the Legislature has ordained for the protection

of those who cannot protect themselves. We fear that those persons who have suffered from prosecutions constitute but a very small proportion of those who have sinned. At the different sea-side places, and especially in the Isle of Wight, at various hydropathic establishments and in their neighbourhood, and in all the suburbs of London, there is too much reason to believe that insane persons are systematically under control without proper certificates. The difficulties in the way of vindicating the law, when the discovery of such a case is accidentally made, are very great. It must be proved, not only that the patient is of unsound mind, but that he is received for profit by those who have the charge of him, and it is not easy to obtain evidence of the payments made on account of the patient. The friends are naturally unwilling to supply such evidence, and those who have received the patient illegally are not likely to criminate themselves if they can help it. Medical men, too, sometimes exhibit a disposition to screen offenders, by pronouncing an opinion that the patient is not really of unsound mind, but only a little weak in mind, or a little peculiar. There are, therefore, many difficulties to be overcome before a conviction can be obtained; and there can be no doubt that frequent violations of the law take place with impunity for one that is discovered and punished.

How, then, is a better state of things to be brought about? We believe that some hold the opinion that the lunacy law should be so modified as to enable the prosecution to be directed against the medical man who attends a lunatic placed under control without proper certificates, as well as against the person who receives him into his house as an inmate. There are grave reasons to doubt whether that would be a wise procedure; any legislation, to be effective, must have the feelings of the medical profession and the public with it, and the consequence of making the law so stringent would soon appear so intolerable as to necessitate its repeal. In order to carry out proper treatment in a case of recent insanity, it is of the first importance to remove the patient from the surroundings of his own household and the company of his relatives, and this would never be done until it was too late to be of any use if the medical man in attendance must lose his patient or incur the danger of a prosecution. But, it may be said, he will run no risk whatever if he simply insist upon having the proper forms filled up before removing his patient. Why not, then, adopt so plain a course? As a

matter of fact, it is very difficult, and sometimes quite impossible, for the practitioner to induce the friends in a case of recent insanity to consent to fill up forms which look so formidable. He must get two medical men, strangers probably to the family, who are anxious to conceal the terrible affliction which has fallen upon them, to examine his patient separately, and then certify that he is a lunatic; and he must get some distressed relative to sign the order, and fill up a statement containing a series of painful questions, and amongst others the name of the person to whom notice of death is to be sent. There is naturally the greatest repugnance on the part of friends to do what seems to them like treating the patient as a hopeless lunatic, and to be equivalent to shutting him up in an asylum; and even if under the pressure of the moment they are induced to comply with the due forms, it is not at all unlikely that they will regret it in the course of a few days, and seek other medical aid. It is a question deserving consideration whether a less rigid series of forms than those necessary for sending a patient to an asylum might not be adopted with advantage in cases of recent insanity treated in private houses—whether, in fact, a system admitting of some elasticity might not be wisely sanctioned by the Legislature. If it were enacted that the medical attendant should send notice of such a case to the Commissioners in Lunacy, with a statement of its nature and duration, might not the regular forms and certificates be dispensed with for a certain period, for three or six months from the commencement of the disease? The opportunity of official inspection would prevent abuses, and many insane persons would be brought to the notice of the Commissioners of whom they now hear nothing. The lunacy statutes have been jealously and stringently framed, to prevent persons being improperly shut up in asylums; this purpose they answer effectually; but the regulations ordained in them certainly do not apply equally well to recent cases of insanity which do not need to be sent to asylums. It would be better to have an elastic rule which should be operative, than a rigid rule which is constantly evaded. However, as the law stands, it is the bounden duty of the Commissioners to enforce obedience to it, and those who infringe its enactments do so at their peril. There is no shadow of an excuse for medical men who systematically receive chronic cases of insanity into their houses without certificates. And yet numbers do so.

Dr. Wilks' Lectures on Diseases of the Nervous System.

We think it right to call the attention of the readers of this journal to the admirable lectures by Dr. Wilks, the physician to, and lecturer on the practice of medicine at, Guy's Hospital, on the Diseases of the Nervous System, now appearing in the *Medical Times and Gazette*, especially as they contain much that is new and original, and are written in a manner that well maintains the high repute their author has already gained in this branch of medical literature.

The lectures that have already appeared are as follows :—

Introductory Remarks on the Physiology of the Nervous System—4th and 11th January, 1868.

On Aphasia and the Education of the Cerebro-Spinal Centres—18th January, 1868.

On the Connection between the Cerebro-Spinal System and the Sympathetic—1st February, 1868.

On Lesions of the Motor Tract—Hemiplegia—15th February, 1868.

On Lesions of the Motor Tract—14th March, 1868.

PART II.—REVIEWS.

Charles Lamb—A Memoir. By BARRY CORNWALL. London: Moxon & Co., 1866.

WHEN should a book be reviewed? and why? and where? Should it be reviewed when copies have scarce reached to the hands of the general public—when only the first batch has been put into boards, and when the author, if young to his trade, is awaiting with listening anxiety the verdict of the critics? Should it be reviewed for marketable purposes, and as an advertisement of the quality of the ware which is offered for sale?—must it be always thus? Or, may it now and then be permitted to review a book which is old and stale in the market, which is to be found on the book-stalls with those signs of popularity which ought to be more precious to the eye of an author than the earliest newspaper panygeric—the worn back, the loose and dirty leaves, and the dogs' ears, and the thumb marks, and all the *indicia* of the wear and tear of use and abuse which this volume of Barry Cornwall's, published two long years since, now lying before us, so abundantly bears?

And to conclude: the biography of Charles Lamb, by Barry Cornwall, has a right to be noticed in the pages of this journal, because the life of Charles Lamb was bound up in one of the most touching and pathetic stories of insanity with which we are acquainted, and because it has been so worthily told by one in whom the tenderness and genius of a poet do but illustrate and enlighten the special knowledge of a Commissioner in Lunacy.

Perhaps if one could avoid or prevent it, a wise man would earnestly desire that his biography should be written by no one; yet if, notwithstanding such repugnance, he felt that it must be done, he would doubtless wish that it should be written by a friend who knew all his failings, and yet loved him in spite of them; who could analyse his character with just discrimination, and yet make it apparent that the composite of faults and virtues was dear to his loving heart; and

who had skill and power to command the sympathy and affection of others. This is exactly what Lamb's new biographer has done. He has made us feel strongly that "the best of men are all compact of faults," and that this individual man was one of the best, yet one of the most faulty. He has made us feel and acknowledge that a man who consumed strong drink, and used bad language, who eternally reeked of tobacco, never went to church, and irreverently professed himself a one-Goddite—a man who was naughty in all these external and visible signs of naughtiness—was, nevertheless, gentle, patient, loving, unselfish, self-denying to such an extent that he was a bright exemplar of those Christian virtues which abide in the heart, and which are unconnected with faith in dogmatic opinions and abstinence from spirituous liquors.

The simple history of Charles Lamb's life-long sorrow and trial is told with affecting pathos. We have only space for extracts which will indicate it in outline:—

"The fact that distinguished Charles Lamb from other men was his entire devotion to one grand and tender purpose. There is, probably, a romance involved in every life. In his life it exceeded that of others. In gravity, in acuteness, in his noble battle with a great calamity, it was beyond the rest. Neither pleasure, nor toil even, distracted him from his holy purpose. Everything was made subservient to it. He had an insane sister, who, in a moment of uncontrollable madness, had unconsciously destroyed her own mother; and to protect and save this sister—a gentlewoman, who had watched like a mother over his own infancy—the whole length of his life was devoted. What he endured, through the space of nearly forty years, from the incessant fear and frequent recurrence of his sister's insanity, can now only be conjectured. In this constant and uncomplaining endurance, and in his steady adherence to a great principle of conduct, his life was heroic." P. 2 and 3.

"We read of men giving up their days to a single object, to religion, to vengeance, to some overpowering selfish wish; of daring acts done to avert death or disgrace, or some oppressing misfortune; we read mythical tales of friendship; but we do not recollect any instance in which a great object has been so unremittingly carried out throughout a whole life, in defiance of a thousand difficulties, and of numberless temptations, straining the good resolution to its uttermost, except in the case of one poor clerk of the India House." P. 3 and 4.

"This was substantially his life. His actions, thoughts, and sufferings were all concentrated on this one important end. It was what he had to do; it was in his reach; and he did it, therefore, manfully, religiously. He did not waste his mind on too many things,

for whatever too much expands the mind weakens it; nor on vague or multitudinous thoughts or speculations; nor on dreams or things distant or unattainable. However interesting, they did not absorb him, body and soul, like the safety and welfare of his sister." P. 28 and 29.

"The year 1796 was a year dark with horror. There was an hereditary taint of insanity in the family, which caused even Charles himself to be placed, for a short time, in Hoxton Lunatic Asylum. 'The six weeks that finished last year and began this (1796) your very humble servant spent very agreeably in a mad house, at Hoxton.' These are his words when writing to Coleridge."

"Mary Lamb had previously been attacked by the same dreadful disorder, and this now broke out afresh in a sudden burst of acute madness. She had been moody and ill for some little time previously, and the illness came to a crisis on the 23rd September, 1796. On that day, just before dinner, Mary seized a 'case knife,' which was lying on the table, pursued a little girl (her apprentice) round the room, hurled about the dinner forks, and finally, in a fit of uncontrollable frenzy, stabbed her mother to the heart. Charles was at hand only in time to snatch the knife out of her grasp, before further hurt could be done. He found his father wounded in the forehead by one of the forks, and his aunt lying insensible and apparently dying, on the floor of the room."

"Whenever the approach of one of her fits of insanity was announced, by some irritability or change of manner, he would take her, under his arm, to Hoxton Asylum. It was very afflicting to encounter the young brother and his sister walking together (weeping together) on this painful errand; Mary herself, although sad, very conscious of the necessity for temporary separation from her only friend. They used to carry a straight jacket with them. P. 37.

"During these years Mary Lamb's illnesses were frequent as usual. Her relapses were not dependent on the seasons; they came in hot summers and with freezing winters. The only remedy seems to have been extreme quiet, when any slight symptom of uneasiness was apparent. Charles (poor fellow!) had to live, day and night, in the society of a person who was—mad! If any exciting talk occurred, he had to dismiss his friend with a whisper. He has been seen to take the kettle from the fire and place it for a moment on her head-dress, in order to startle her into recollection. He lived in a state of constant anxiety;—and there was no help." P. 113.

This history of Mary Lamb's insanity, graphic and pathetic though it be, is simple enough and easily intelligible. Inheriting the dread taint of mental disease, she becomes, through circumstances accidental and unavoidable, so far as we know, one of that saddest class whom we mis-call criminal lunatics. How it came to pass that she was not relegated to confinement in Bethlem is not explained. She herself is reported to

have said, when recovering, that "she knew she must go to Bethlem for life; that one of her brothers would have it so; the other would not wish it, but would be obliged to go with the stream." That which she feared and expected did not happen; she was placed, not in a hospital, but in an asylum, so long as the recurring maniacal excitement continued, and during the long intervals of sane tranquillity she lived with her brother—his beloved friend, his literary companion, his devoted sister. The horror which Lamb seems to have entertained of a hospital as a residence for his sister, and the absence of any repugnance to placing her for temporary treatment in an asylum, are curious and remarkable. Lamb and his father had together an income of £170 or £180, out of which, he says,

"We can spare £50 or £60 at least for Mary, while she stays in the asylum; if I and my father and an old maidservant can't live, and live comfortably, on £130 or £120 a-year, we ought to burn by slow fires. I almost would, too, that Mary might not go into an hospital,"

—a passage which records in strong terms the horror which was entertained of the Bethlem of that day. When she recovered from the homicidal attack, and before he brought her back to live with him at his home, he took a lodging for her at Hackney, and spent all his Sundays and holidays with her, but neither now nor at any future time during the long, life-long continuance of her disease, did he hesitate to restore her to the asylum treatment, complicated as it then was with the supposed necessity of mechanical restraint, whenever the accessions of excitement appeared to require it.

Mary Lamb's disease appears to have been a typical case of intermitting mania: the accessions marked by violent and dangerous excitement; the intermissions by the sweet, calm temper, the good sense and intellectual vigour, which beam upon us from the portrait which is given in these pages, which were well-known and appreciated by Lamb's intimate literary friends, and which have been in some degree transmitted to us in those tales from Shakespeare, of which she was the authoress. As her long life drew towards its sere and yellow leaf, her fits of madness became more frequent, and the intermissions less complete; but such as her madness was, through the devoted love and tender care of her brother, she underwent asylum treatment only when it appeared to be needful, and was permitted fully to enjoy all the blessings of personal freedom and

domestic happiness during all the intervals, when control was not imperatively demanded. The manner in which this case was managed, even in the old bad times, leads to the painful reflection upon the number of miserable creatures who are relegated to asylum-life for periods far exceeding the necessities of their treatment. Year after weary year—often, indeed, until the end of life—are lunatics left in asylums without a taste of the pleasures of home, whose mental conditions far less require such control than did that of Mary Lamb. And, on the other hand, how numerous are the insane who are detained in what are called their homes, and altogether denied the advantages of skilful treatment, which might add infinitely to their comfort and happiness, and even to their temporary or permanent restoration.

With some knowledge of these matters, we know not which astonishes or provokes us the most—the selfishness and apathy of those relatives who, having once placed a poor insane person in an asylum, are content to leave him there for ever, or the ignorance and prejudice of those numerous persons who persistently refuse that asylum treatment to their insane relatives, which is as urgently demanded as rest to broken limb, or shaded light to an inflamed eye.

We could have wished that the biographer had told us something more about Charles Lamb's own madness. It is, in fact, only incidentally referred to at page 42, while discussing the reality of his one love affair.

"After he had been himself into a lunatic asylum he writes to Coleridge that 'his head ran upon him in his madness, as much almost as on another person, who was the more immediate cause of my frenzy.'

"But," the Author adds, "the fact [that is of the supposed love affair], whether true or false, is inexpressibly unimportant." A conclusion in which we cannot concur, for whether the "pangs of despised love" did or did not cause Lamb's madness, the entanglement of the heart's tenderest affections in such a man can scarcely be considered inexpressibly unimportant in the history of his life.

At the end of the volume the subject of Charles Lamb's madness is once more referred to thus :—

"It is not true that he was ever deranged, or subject to any restraint, shortly before his death. There never was the least symptom of mental disturbance in him after the time (1795-6), when he was placed for a few weeks in Hoxton Asylum to allay a little nervous irritation."

It would be interesting to know more on this subject, but a loving hand has thought fit not to lift the veil. We wonder if Lamb in any way thought of himself when he penned that *Elia* Essay on the Sanity of True Genius. The pages of his biography do not bear out his proposition, for not only was Lamb himself placed under treatment in a lunatic asylum, if "only to allay a little nervous irritation;" but of his poetical colleague, Charles Lloyd, his biographer says: "An extreme melancholy darkened his latter days, and, as I believe, he died insane." And again, of one of his companions, the Northamptonshire poet, "John Clare, a better poet than Bloomfield," he has to record that "poor fellow! he died insane."

Barry Cornwall, we believe, is much nearer the truth than Lamb, when he refers some proportion or direction of Lamb's genius and humour to the hereditary taint of insanity under which he laboured; and there would be fuller and better grounds than those which Lamb was able to adduce to maintain the converse of his proposition—namely, that *all genius is somewhat insane*.

Lamb says it is impossible for the mind to conceive a mad Shakespeare; and yet Shakespeare himself compares "The lunatic, the lover, and the poet;" and so far from agreeing with this dictum we think it impossible to study Shakespeare's sonnets, without coming to the conclusion that he was deeply impregnated with melancholy, as deeply, perhaps, as Lamb's favourite author, old Burton, whose sanity was not recognised. Again, Tasso was mad, and Cowper, and a long list of others, whose title to the crown of genius cannot be disputed.

If a man of genius hath more lively emotions and greater sensitiveness than other men, surely he is more exposed to "the slings and arrows of outrageous fortune." He may not necessarily be otherwise than thoroughly sane, but he is more exposed than others to many of the causes of insanity. Like a Berserker, he storms through the battle of life with limbs more free than those who are cramped and confined by panoplies of prejudice and indifference, but his naked body is more exposed to the weapons of the foe.

It is of liabilities, not of actualities, that we are writing. We do not doubt if the statistical truth could be arrived at that the per centage of insanity among poets would be found to be very high, on account of their peculiar susceptibility to the causes of mental disease, and the unprotected

manner in which they lie open to its invasion; but that individual poets are thoroughly and typically sane, of course we can entertain no doubt. What better example than the poet who has written the pages under review, and who, in the seventy-seventh year of his age, has possessed all his mental faculties in such completeness, and such alertness, such strength, vigour, and vivacity, that he has been able to sit down and write a wholesome, graphic, charming book like this, out of his reminiscences of the past, out of the resources supplied by faithful memory, kindly feeling, and honest thought. When the biographer himself has been gathered to his many friends who have gone before, may his life also be recorded by some loving brother, whose pen may be as delicate as the pencil of a flower painter, and whose literary art may be able to distribute far and wide the grace and the perfume of a beautiful life.

Handbook of the History of Philosophy. By DR. ALBERT SCHWEGLER; translated and annotated by JAMES HUTCHINSON STIRLING, L.L.D., author of "The Secret of Hegel," &c.

THE translator of this handbook informs us in his preface that 20,000 copies of the German issue have been already sold, and that it has been translated in America and in Denmark. He does not think it necessary to inform us that the reason of this extraordinary sale was that the book became a textbook for students cramming for examinations. Deeming it a work indispensable to the student of philosophy, he has undertaken its translation into English as a token of gratitude for the benefit which he has received from it; and he pronounces it, as the result of his critical comparison, "at once the fullest and the shortest, the deepest and the easiest, the most trustworthy and the most elegant compendium that exists in either language," German or English. This is certainly extraordinary praise, coming from one of the few Englishmen who have been at the pains to make themselves thoroughly acquainted with the formidable mysteries of German philosophy; but the strong terms in which his admiration is expressed are calculated to raise some degree of suspicion that the writer was thinking rather of the artistic coupling of his adjectives in what he wrote than of the intrinsic merits of the book, great as these doubtless are. No

one can read many pages of it without being struck with the wonderfully clear and concise style, and with the author's thorough insight into, and comprehension of, the different systems of philosophy which have in turn prevailed and passed away. We are sorry that we cannot speak in equally complimentary terms of the translator's own style. The translation itself is very good, but his annotations, which occupy some seventy pages at the end of the volume, are written at times in a singularly loose, careless, and confused style; some of them look very much as if they had been thrown off in a gallop under the inspiration of a passing frenzy. Moreover, the tone of them is not commendable: they hardly conceal, if they do not display, an egotistical assumption of superior metaphysical erudition, and no small contempt of such inferior creatures as Comte and Buckle. The way in which Dr. Stirling speaks of and criticises the opinions of Lewes, of Grote, and of Mill, though formally respectful, but ill disguises his commiseration of their benighted state of spiritual blindness and destitution. However, he has reserved for a more convenient place and season the full exposition of his own views. "I had intended," he says, "to say a word of depreciation of Mr. Lewes' distinction in reference to what he calls the objective and the subjective methods, as well as of his general view of philosophy. For this, space at present fails, however, and I must hope for another opportunity. The reader will probably not be surprised if I say now, nevertheless, that I regard neither distinction nor view as possessed of a vestige of foundation." This is one way of putting off a discussion until a more convenient season; but it is easy to conceive a better fashion of doing it.

Before carrying his purpose into effect, we trust that Dr. Stirling, who has devoted so much labour to the study of philosophy, will consent to bestow equal pains on the study of science. It may well be that, when he has done that, many of the questions of philosophy will present themselves to his mind in a very different light from that in which he sees them now; and, at any rate, he can hardly be considered duly qualified for applying himself to his task in a profitable manner, until he has mastered all the known facts of nature as well as the words in which philosophy has vaguely speculated about them. At present his mind is in a state of entire subjection to Hegel, and he openly glories in his servitude—it would scarcely perhaps be right to say, in his shame. Unless

he emancipate himself to some extent from this bondage, those who admire the bright promise of his philosophical career may not unreasonably apprehend an untimely extinction of his light by reason of Hegel on the brain. It would be instructive to have a full, candid, and well-weighed criticism, from the metaphysical point of view, of the school of so-called Positivists; but we cannot justly expect to have such a criticism from any one who holds blindly to the very words of a single master, and ignores or disdains all knowledge that cannot be found in the pages of the idol before whom he prostrates himself. Has Hegel exhausted philosophy? Alas! we fear not: there is too much reason to think that as it was in the beginning, so it is now and ever shall be: "what was asserted once is asserted still, and instead of being resolved by discussion, is only fixed and fed."

But to return to Schwegler's hand-book. He begins his history of philosophy with Thales and ends with Hegel; his accounts of the later German philosophers—Kant, Ficht, Schelling, and Hegel—occupying nearly a third of the volume; Bacon he disposes of in a page and a half. It will be understood then that the spirit of the work is entirely metaphysical; herein differing fundamentally from Dr. Lewes' *Biographical History of Philosophy*, with which it will naturally be compared. Those who read the works of both authors will probably admit that Schwegler has exhibited the deeper insight into the various philosophical systems of thought, and unfolded more truly what was the real meaning of them, so far as they had any. By reproducing in a lucid and compact summary the course which reflection has taken as a whole, he has supplied an admirable survey of the serial development of philosophy. Mr. Lewes, on the other hand, looks on ancient thought in the spirit of modern philosophy, and viewing it from without, presents us in his work with a critical disquisition rather than an organic evolution; he certainly has not entered sympathetically into the spirit of the old philosophers, and been content to be the organ purely of their reflections; consequently he has produced a work which, learned, full of instruction, and written in a pleasant style, nevertheless is more interesting to the general reader than satisfactory to those who hold fast their faith in metaphysics. One fact the student of Schwegler's Handbook will be very soon convinced of: that it pre-supposes on the reader's part a great deal more knowledge of the contents of and bearings of the different systems of philosophy than it

communicates. In fact, so brief are its summaries, so condensed its matter, and so vast the range of thought with which it deals, that it is impossible to conceive any one who has not previously studied philosophy getting from it much information beyond the names of the philosophers, their order of succession, and vague notions of their relations to one another. The book is certainly not so well fitted to teach those who need to learn as it is to refresh the memories of those who have already learned, and have forgotten what they had at one time acquired. Whether it was the best German compilation to present to the English reader, in order to convey to him adequate notions of German philosophy, is extremely questionable. It is obviously, however, impossible to make a criticism of the book here; it shall suffice therefore to make two extracts, which may serve to indicate its manner of execution and the character of its style.

BACON.—The philosopher who, for principle, consciously adopted experience, or an observing and experimenting investigation of nature, and that, too, in express contrast to scholasticism and the previous method of science, and who, on that account, is frequently placed at the head of modern philosophy, is (the just named) *Bacon*, Baron of Verulam (b. 1561, Lord-keeper of the Great Seal and Lord Chancellor under James I., subsequently disgraced; d. 1626—a man not without weaknesses of character).

The sciences, says Bacon, have hitherto found themselves in a most deplorable condition. Philosophy, lost in barren and fruitless logomachies, has, during so many centuries, produced not a single work or experiment capable of bringing any actual advantage to the life of the race. Logic hitherto has subserved rather the confirmation of error than the investigation of truth. How is this? From what does this poverty of the sciences in the past proceed? From this: that they have been separated from their root in nature and experience. Several causes are responsible for this: first, the old and inveterate prejudice that man would derogate from his own dignity, did he occupy himself much or long with experiments and the things of matter; secondly, superstition, and the blind fanaticism of religion, which in every age has proved itself the most irreconcilable foe to natural science; thirdly, the exclusive attention of the Romans to morals and politics, and of the better heads among Christians to these and to theology; fourthly, the veneration of antiquity and the overwhelming authority of certain philosophers; lastly, a certain despondency and despair of being able to overcome the many and great difficulties which oppose themselves to the investigation of nature. To all these causes the depression of the sciences is to be traced. What is wanted now, then, is a thorough renewal, regeneration, and reformation of the sciences

from their lowest foundations upwards: we must find, at all costs, a new basis of knowledge, new principles of science. This reformation and radical cure of the sciences is dependent on two conditions: objectively, on the reduction of science to experience and the study of nature; subjectively, on the purification of the mind and intellect from all abstract theories and transmitted prejudices. These conditions united yield the true method of natural science, which is no other than the method of induction. On correct induction depends the salvation of science.

Bacon's philosophy is comprised in these propositions. His historical import, then, is in general this: that he directed anew the observation and reflection of his contemporaries to actual fact, proximately to nature; that he raised experience, which hitherto had been only matter of chance, into a separate and independent object of thought; and that he awoke a general consciousness of its indispensable necessity. To have established the principle of empirical science, of a thinking exploration of nature—this is his merit. But still only in the proposing of this *principle* does his import lie: of any *contained matter* of the Baconian philosophy, we can, in rigour, not speak; although he has attempted (in his work *De Augmentis Scientiarum*) a systematic encyclopædia of the sciences on a new principle of classification, and has scattered through his writings a profusion of fine and fertile observations (which are still in vogue for mottoes).

The following selection is from Schwegler's account of the doctrines of Leibnitz:—

THE PRE-ESTABLISHED HARMONY.—The universe, then, is but sum of the monads. Everything, or everything that is composite, is an aggregate of monads. Every body is an organism—not a single substance, but a complex of substances, a plurality of monads, just as a machine, even in its minutest parts, consists of machines. Leibnitz compares bodies to a fish-pond, the component parts of which live, though it cannot be said that the pond itself lives. The usual conception of things is thus completely turned upside down; from the point of view of the monadology, it is not the body, the aggregate, that is the substantial element, but its constituent parts. There is no such thing as matter in the vulgar sense of insensible extension. How, then, are we to think the inner connection of the universe? In the following manner. Every monad is a percipient being, but each is different from each. This difference, plainly, must be essentially a difference of perception; there must be as many various degrees of perception as there are monads, and these degrees may be arranged in stages. A main distinguishing difference is that of the more confused and the more distinct cognition. A monad of the lowest rank (*une monade toute nue*) is one that just conceives and no more—that has its place, that is, on the stage of the most confused cognition. Leibnitz

compares this state to a swoon, or to our condition in a dreamless sleep, in which we are not indeed without ideas (else we should have none on awaking), but in which the ideas neutralise themselves by their own number, and never attain to consciousness. This is the stage of inorganic nature, on which the life of the monads expresses itself only in the form of motion. Those are higher monads in which thought is formative vitality, but still without consciousness. This is the stage of plants. It is a further advance in the life of the monads when they attain to sensation and memory, which is the case in the animal world. Whilst the inferior monads only sleep, the animal monads dream. When the soul rises to reason and reflection, it is named spirit. The distinction of the monads, then, is that, though each mirrors the whole universe and the same universe, each at the same time mirrors it differently—the one less, and the other more perfectly. Each contains the entire universe, entire infinitude within itself. Each, then, resembles God in this, or is a *parvus in suo genere deus*. The difference is this only, that God knows all with perfect distinctness, while the monads perceive with less or more confusion. The limitation of any one monad, then, consists not in its possessing less than any other, or even than God, but in its possessing the common fund in a more imperfect manner, inasmuch as it attains not to a distinct knowledge of all. So conceived, the universe affords us a spectacle, as well of the greatest possible unity, as of the greatest possible variety; for if each monad mirrors the same universe, each also mirrors it differently. But this is a spectacle of the greatest possible perfection, or of *absolute harmony*. For variety in unity is harmony. In another respect also the universe is a system of harmony. Since the monads act not on one another, and each follows the laws of its own being, there is a risk of the inner agreement of the universe being disturbed. In what manner is this risk precluded? In this way: that each monad stands in living relation to the whole universe and the same universe, or that the universe and the life of the universe are completely reflected in each. In consequence of this reciprocal correspondency of their perception, the alterations of all the monads are mutually parallel; and precisely in this (as pre-established by God) consists the harmony of the all.

THE RELATION OF SOUL AND BODY admits of a particular explanation with reference to the pre-established harmony. On the pre-suppositions of the *monadologie*, this relation might easily appear enigmatic. If one monad cannot act on another, how is it possible for the soul to act on the body, to put it in motion, to guide it in motion? The pre-established harmony solves this problem. Soul and body certainly do follow, each in independence of the other, the laws of its own being—the body, laws that are mechanical; the soul, laws that are ends. But God has instituted so harmonious an agreement of the two factors, so complete a parallelism of both functions, that, in point of fact, there is a perfect unity of soul and body.

"There are," says Leibnitz, "three views of the relation between soul and body. The first, the usual one, assumes a mutual action of both. This view is untenable; for between spirit and matter there can be no reciprocity. The second, that of occasionalism (xxv., i.), attributes this reciprocity to the continual assistance of God; but that is as much as to make God a *Deus ex machinâ*. There remains, then, for the solution of the problem, only the assumption of a pre-established harmony. Leibnitz illustrates these three views by the following example:—Let us suppose two watches, the hands of which always indicate exactly the same time. This agreement may be explained: firstly, by the assumption of an actual union between the hands of both watches, in such a manner that the hands of the one draw those of the other along with them (the usual view); secondly, by assuming that a watchmaker always sets the one watch by the other (the occasionalistic view); and finally, by a third assumption, that both watches possess so complete a mechanism that each, though in perfect independence, goes also in perfect agreement with the other (the pre-established harmony). That the soul is immortal (indestructible), follows of itself from the nature of the theory. Properly, there is no such thing as death. What is called death consists only in the loss to the soul of a part of the monads which constituted the machine of its body at the same time that the living principle returns to a condition similar to that which it possessed before it appeared on the theatre of the world.

Joseph Guislain—sa Vie et ses Ecrits. Par A. BRIERRE DE BOISMONT, M.D., &c., avec le portrait de Guislain. Paris, 1867—pp. 160.

The Life and Writings of Joseph Guislain. By DR. BRIERRE DE BOISMONT.

GUISLAIN'S name and reputation are familiar to all those engaged in the care and treatment of the insane, and to all who study psychological medicine. In one point of view he stands prominently forward as the great reformer of the condition of the insane in Belgium; and in another, as the able delineator of insanity as a disease, and author of the "*Leçons Orales*." Consequently a narrative of his life and writings will commend itself to a considerable number of readers, and will be of more particular interest so far as it unfolds the order of events, the course of ideas, and the development of principles, which, by their growth and pro-

gress, were fruitful in securing the amelioration of the state of asylums and of the insane which Guislain was instrumental in bringing about in his native land.

M. Brierre de Boismont, who has undertaken the history of Guislain, is also probably nearly as well known among English physicians as the distinguished Belgian. He was a personal friend, and evidently a great admirer, of Guislain, estimating highly the work done by him, and the writings of which he was the author. Yet upon an examination of the contents of this book—which, at least in a certain degree, must be regarded as a memoir—the reader will, we believe, be disappointed in it as a sketch of the life and works of Guislain. In fact, M. de Boismont takes too prominent a position in the book; he occupies too much space with arguments and reflections of his own, enforced by numerous references to the many papers and treatises of which he can proudly claim the authorship. He occupies himself very much in illustrating his own views, quoting Guislain much as a valued supporter, and fails to present any adequate sketch of the personal history of the Belgian psychiatrist. In short, the bulk of the work consists of an analysis of psychological doctrines, framed upon Guislain's lectures, but composed and discussed by the French physician. It might be urged that the life of Guislain presented no signal features, was marked by no great events, but was, though useful, a quiet, unobtrusive existence. Probably this may have been true of it, and so far as M. de Boismont enlightens us on this matter, such appears actually to have been the case; but then it may be asked, why write a book of 160 pages to record a life with so little incident in it, and to analyse teachings which, though of high practical merit, have a very small share of original thought?

We cannot undertake to reply to this possible inquiry suggested to the reader of the book, but may quote M. de Boismont's words from his preface, by way of explanation, or let it be said, of apology—viz., that, "when a celebrated alienist has bequeathed us a work containing the results of his experience, it becomes indispensable to collect its salient facts;" to gather whatever is new and interesting in the contents of his work.

Having set this task before him, M. de Boismont proceeds in his preface with a sketch of the principles of research, and of the leading doctrines of Guislain, taking due care to magnify the office of a psychological physician.

The recorded events in the life of Guislain may be comprehended within a very brief space. He was born in Ghent, at the commencement of the year 1797, and completed his useful and honourable career in 1860, in his sixty-fourth year. From his earliest days he exhibited great artistic talent, and his father had proposed to train him for an architect or an engineer; but his own wish was to become a physician, and he was consequently educated as one, but at what medical school does not appear from the narrative. It is implied, however, that the condition of the insane in his native land had attracted Guislain from the outset of his career, and had awakened his interest in them. It may be taken as evidence of this fact, that when twenty-four years old he became a competitor for a prize offered by a commission in Amsterdam, on the question of the best means of treating the insane, and of the effects attainable by treatment, and produced an essay highly commended. In 1825 it would seem that he wrote a second memoir, to which the commission awarded the prize. It was printed in 1826, with the title "*Traité sur l'aliénation mentale et sur les hospices des aliénés*," in two volumes.

M. de Boismont refers to this treatise as partaking of the faults and deficiencies of a young writer without practical knowledge and experience, swayed by theories, systems, and classifications, and by illusions respecting the power of medicines; but, nevertheless, indicative of the future reformer, and full of promise to science.

Recognition of his labour speedily followed, for in 1828 he was nominated chief physician of the establishments for the insane at Ghent, and was thereby placed in a position to test his theories by experience. After five years' study he again came forward as an author, and produced his "*Traité des phrénopathies*," the peculiar leading doctrine of which was that moral suffering, "a morbid exaltation of moral sensibility," is the principal cause of insanity, a doctrine he ever afterwards continued to hold. Another topic enlarged upon in this treatise was the rarity of the commonly described types of insanity in their figured simplicity, and the want of due appreciation of what he termed the morbid intellectual associations.

About this period he travelled through most countries of Europe, and visited their chief benevolent and medical institutions, producing in 1840 his medical letters on Italy, and in 1842 his medical notice of Holland. Previously, however,

in 1826, and again in 1838, he had examined and described the wretched state of the asylums and of the insane of Belgium; and on several subsequent occasions, when his reputation was well established, he was an active member of commissions of inquiry respecting the provision for lunatics in his native country. His influence for good was undoubtedly great: still reform proceeded slowly, for the report of 1852 speaks of the miserable seclusion cells in existence, of the deficient dietaries and appliances for treatment, and especially of the absence of proper medical supervision. So again, in 1855, the official report animadverts on the like defects, and M. de Boismont subjoins the remark, that even at the present day Belgium possesses but one asylum—namely, at Ghent—constructed upon scientific principles, and that the position of asylum physicians is most unsatisfactory.

The *opus magnum* of Guislain was the publication of his lectures ("Leçons Orales"), in 1852, in three volumes; at an age, observes M. de Boismont, when the period of illusions was passed. We shall not attempt to follow the analysis of this work as presented to us in the treatise before us, but shall only trace a few important features. In Guislain's apprehension a lunatic differs from a sane man by no positive conditions but simply from a want of self-control, of the power of mastering irrational ideas. Mental maladies have no individuality of their own. With him, moreover, insanity is a disorder of the spiritual part of man, not necessarily connected with any lesion of the material organs, but having its origin in disturbance of the balance of the mental powers, initiated pre-eminently in the affections and emotions. Ecstasy, in his opinion, is the type of a large class of mental disorders, arising mostly from painful impressions on the moral sense, and tending especially to produce immobility, muscular rigidity, and taciturnity; mania he regards as present where the patient is under the sway of an irresistible impulse to act capriciously; and delirium as an instance of erroneous conceptions and disordered ideas.

The study of the various forms of madness leads to their classification under three heads, viz.:—1, idiopathic; 2, symptomatic; and 3, sympathetic phrenopathies; and the very just inference is drawn that the physician who will successfully treat the insane must not only be a specialist, but must likewise be well trained in pathology and versed in the treatment of general maladies.

The analogies subsisting between the sane and insane,

touching the mental state, are largely insisted upon, and few will surpass the Belgian psychiatrist in portraying the distinctive features of mental disease. As M. de Boismont remarks, his observations present the most complete *photograph* of mental disorder ever published.

Civilisation and insanity appear to advance together, and M. Guislain takes pains to show how the former blessing becomes thus attended by a concurrent evil. At the same time he rejects the conclusion that there is a necessary relation between vice and insanity, although in moral causes he finds a nearly universal explanation of the origin of insanity. From his tables he calculated that mental distress operated as a cause in 33 per cent., and that reverses of fortune or the loss of money constituted 85 per cent. of the moral causes assigned. Nevertheless, the disease is rarely attributable to a single cause; the one assigned is mostly but the last emotion in a series; and further, hereditary tendency is a powerful predisposing cause in at least 30 per cent., according to Guislain's statistics.

Contrary to the prevalent opinion Guislain asserts that melancholia is more curable than mania; a conclusion probably referable to his doctrine that melancholy forms an initial period in the majority of cases. He, moreover, holds that general paralysis is in some instances curable, stating that he had notes of six or seven cases in which the disease was recent, and had been cured. His cures, calculated upon the admissions, equalled 45 per cent.; but when viewed in relation to the stationary population of the asylum, he concluded that the curable did not amount to more than from 16 to 20 per cent., and that relapses reached 19 per cent.

The medical jurisprudence of insanity formed no distinct separate section of Guislain's work, but, notwithstanding, M. de Boismont vindicates for Guislain the position of an instructor in that department of mental medicine, and particularly refers, in illustration, to the views enunciated and enforced respecting morbid and irresistible impulses, in which the Belgian physician was a firm believer, and to his careful observations in the examination of patients with the view of ascertaining their actual mental condition.

Prognosis and treatment are well discussed in Guislain's lectures. Success in treatment he regards as not to be looked for from any one agent, but rather from a series of influences brought to bear both on the mind and body of the patient. "The treatment of insanity," he remarks, "is, in a great

many cases, rather an education than a pharmaceutical medication. It is the duty of the physician to address himself above all to the heart or to the affections and emotions." His practice was therefore in harmony with these convictions, and of an expectant character; remedial measures being varied according as the disease was advancing, stationary, or otherwise decreasing.

In cases of melancholia, he advocated seclusion and confinement in bed, with the denial of conversation, of argument, and of employment; and he held that walking outdoors, lectures, and music are always prejudicial during the ascending period of melancholia. This mode of treatment, carried out for three or more months, was, he asserted, attended with very beneficial results. Blood-letting by leeches applied to the arms was another measure resorted to by Guislain in melancholia, less aberrant from our accepted notions of treatment (indeed, likely enough to be at times serviceable where a torpid, loaded liver complicates the mental disturbance), than the "moral treatment" just spoken of.

For the "ascending" period of mania, a remedy much relied upon was prolonged hot baths, continued during great excitement for six, ten, or twelve hours. Seclusion in a cell he evidently looked upon as the leading feature in the practice of non-restraint, and very rightly sought to restrain its use. But he could not bring his mind to conceive that the insane could be treated without mechanical restraint. Incurrible cases, he remarked, occur particularly among imbeciles, and nothing short of the camisole and douches can keep them within bounds; and he puts the questions, to which he clearly expects no satisfactory reply;—what will you do with patients who are incessantly moving about, who will not lie down to sleep, who perpetually pace the room, or stand immovable? what will you do with those who throw about their food, break the vessels in which it is offered them, or crush them, if of metal, beneath their feet, who destroy the walls and doors of their rooms; or with those again who persist in stripping themselves of their clothes, or of the bed covering, or who obstinately refuse food, or who attack others, or mutilate themselves, or seek self-destruction, or are perpetually given to masturbation?

M. de Boismont makes no attempt to respond to these queries, but accepts them, in general, as unanswerable by those who hold the employment of coercion to be unnecessary; and he refers to his notice of Dr. Conolly, published in 1866,

in the "*Annales Medico-Psychologiques*," as conveying his matured opinion on non-restraint; viz: that at an increased cost it is practicable, except in some rare cases. Nevertheless, his comments imply that if practicable it is not desirable in many instances. He, moreover, introduces a story respecting Dr. Conolly, founded on a confidential statement made to him by the superintendent of a public asylum, to this effect: that the great advocate of non-restraint felt himself unable to deal with a suicidal case, without sacrificing his great principle of management, and thereupon wrote to the friends of his patient to remove her from his house, and so rid himself of any further trouble about her. If there be any truth in this story that Dr. Conolly sent away from his private house an unmanageable patient, the circumstance would, without doubt, admit of other interpretation than that assumed by Dr. de Boismont—that, namely, of its having been an admitted failure of his cherished principle of treatment.

Having delivered himself of this story as a capital illustration of his own and of Guislain's opinion as to the inapplicability of non-restraint as a general plan of action, M. de Boismont proceeds to analyse and enforce by his own remarks the reflections of the Belgian physician upon its impracticability, particularly in the management of suicidal patients, who are stated to be particularly numerous in Belgium.

However, as we are not disposed to write an "apology" for non-restraint, we will pass on to notice Guislain's views relative to lunatic asylums. He considers that they should serve the six following purposes:—1, as a place of treatment; 2, as a refuge for incurables; 3, as a house for moral and physical education; 4, as a primary school, artistic, scientific, and religious; 5, as an industrial establishment for indoor, field, and garden labour; 6, as a place of seclusion, of safety, and preservation. In order to the fulfilment of these several objects, the physician should understand the principles of architecture, and the asylum should not be a huge barrack, but contain not more than from 300 to 350 patients. If this number be exceeded, its superintendence should be divided between several physicians-in-chief. The curable cases, amounting to about 20 per cent., should be kept separate from the idiotic, paralytic, epileptic, excited, and dangerous inmates.

Some paragraphs at the close of this essay on the life and writings of Guislain furnish a few additional particulars concerning the former. The regret is that M. de Boismont was

not in a position, by intimacy with the subject of his memoir, to afford an insight into his inner life; into the history of the actual practical work done by him in the Ghent asylum, or of that of the improvements he was the means of effecting in the condition of the insane generally in his native country, so that a satisfactory judgment might be formed respecting his claims to recognition as a reformer—a character claimed for him. As it stands, the portrait drawn by his French admirer is that of a lecturer and writer on mental disease, distinguished by the perspicuity and life-like sketches of that disease, and, generally, by a tender regard for the proper treatment and well-being of its sufferers.

It was not until 1846 that M. de Boismont made the personal acquaintance of Guislain, and we are left in doubt whether he ever saw him afterwards. However, several letters subsequently passed between them, chiefly, as it appears from the context, in relation to the "*Annales Medico-Psychologiques*," with which M. Brierre Boismont was interested as one of the editors. From one of these letters, cited at large, an insight is afforded into the every-day life of activity and labour passed by the Ghent physician, and we are enabled in some degree to appreciate the value of his services to his country and generation. It is worth while to note the principal occupations referred to by Guislain in this letter, written in 1852. He commences by saying that time has failed him to be a contributor to the "*Annales*." That such is the case he tells his correspondent to judge, and then proceeds to detail the items of daily work:—

"I have to prepare for my University course of comparative physiology, and in so doing to perform numerous experiments, analyses, and researches. Every day I have to visit four establishments, containing 550 lunatics, and have moreover to give a course of clinical lectures on insanity at the asylum. As public commissioner and inspector, I have to traverse the country, to visit and organise our sixty asylums, exclusive of Gheel. Next comes the jury of University examination, which takes me sometimes to Brussels, at other times to Louvain; or it may be that I am summoned by the Minister of the Interior to the Superior Council of Instruction; or am otherwise occupied with the Communal Council of Ghent; or with the Sanitary Board. But beside these occupations I have administrative notices to send in, letters to write, reports to make to the Academy, or to the Medical Society; and withal numerous consultations that take up much time; in a word, I

live the life of a galley-slave, in contrariety to my tastes for solitude and reverie. Is not such an existence calculated to make me a complete hypochondriac?"

Such an existence was, indeed, incompatible with health and life, and it is no marvel that his health gave way, and that we hear of him, six years afterwards, deploring his inability to write to M. de Boismont on account of violent neuralgia, with vertigo, syncope, and sleeplessness; a state of things that also compelled him to relinquish his chair in the University. And though, after this period, his malady was very greatly relieved for a time, he never wholly recovered, and his biographer leads us to infer that the later years of his life were clouded with much sadness and suffering. Death, however, at last occurred, in consequence of strangulation of the intestine, on the first of April, 1860.

The first claim put forward in behalf of Guislain is that he was pre-eminently a reformer. This may, in some measure, be admitted, though his biographer advances no special proof in its support. We are told that his inherent desire to fulfil some definite object in life was determined towards lunatics by his having become cognisant of their wretched state, and that to treat them as patients became the principle for which he ever afterwards contended.

However, as a reformer of abuses in asylums and of wrongs to the inmates, he was only partially successful, as intimated by the complaints he had himself to make respecting the state of asylums (as already noted) only a comparatively short time before his death. Not, indeed, that any fault attaches to him on that account, for we must presume that the persistent abuses remained in spite of his best endeavours, coupled with reputation and influence, to remove them. Moreover, when viewed from our British asylum stand-point, Guislain must be held to have failed as a reformer, for he clung to prejudices and usages of the past, and became, as we are informed in this book, angry, when pressed with the subject of non-restraint as a general principle; even when, on the testimony of others, or by his own observation, he might have corrected those prejudices and reformed those usages.

As a teacher he stood high among those who knew him best. The rector of the University of Ghent eulogises his merits as such—the solidity and perspicuity of his teaching, his ready and pleasing discourse, his animated, earnest manner, and his commanding figure; and we are finally called upon by

M. de Boismont to accord him a position "among the diffusers of facts, the initiators of ideas, the enunciators of new principles, the popularisers of instruction and of practical propositions." Excepting as an initiator of new principles the other parts of this comprehensive claim to recognition may be allowed to Guislain. His reputation, indeed, as a psychiatrist conferred honour on his country, but still was not of such character and brilliancy that it may be predicated of it that it will live long in the future.

St. George's Hospital Reports. Edited by JOHN W. OGLE, M.D., F.R.C.P., and TIMOTHY HOLMES, F.R.C.S. Vol. II., 1867.

THE practice of publishing annually a volume of reports must press rather heavily upon the resources of the smaller medical schools, and we shall not be surprised if, after a few years, the reports fail to appear regularly. There is no absolute reason, however, why they should come out every year. When there is a failure of material deserving publication, it will conduce more to the interest of the school to wait till the harvest ripens than to issue a volume swelled into respectable bulk by indifferent padding. A journal must, by the necessities of its being, appear at its due season; but the only rule governing the appearance of a volume of scientific reports should be the supply of contributions fitted to instruct the medical public, and to do credit to the schools.

If it were our business here to criticise in detail the different papers which appear in the second volume of *St. George's Hospital Reports* it might be necessary to say some rather severe things of one or two of them. Happily such a task is not imposed upon us; we have the more pleasant duty of calling attention to certain contributions that will be found of special interest to the readers of this journal.

First, then, may be mentioned a paper on delirium by Dr. Handfield Jones, which contains interesting reports of cases, and suggest some considerations regarding treatment that are of practical importance.

"M. A. B., æt. 40 to 50, a coffee-house keeper; admitted Oct. 19th, 1865. Was in a state of extreme hysterical excitement when admitted;

it took four persons to put her into a shower bath; all night she was very noisy and obstreperous, abusive and quarrelsome, apparently unconscious. 20th.—Bowels well acted upon by castor-oil this morning; stools passed in bed. Is now tranquil; lies dozing. When spoken to she grins in a silly way, keeping the commissures of her lips apart for some length of time; the gums are then seen to be red and swollen. When questioned, she answers in a silly half-laughing manner. Breathing quiet; forehead cool; eyes not injected; has had several doses of valerian and cannabis indica, and a blister to neck. Her brother states that her malady has been entirely brought on by her drunken husband's misconduct, which seriously interferes with her business; she has been insensible all the past week. Morphiae muriat. gr. $\frac{1}{2}$ + extr. hyosey. gr. iij. h. n. 21st.—Became noisy again last night, and had two doses of antim. pot. tart. gr. $\frac{1}{2}$, besides the pills; but it is not certain how much of the latter was got down. However, she slept well, and has taken food this morning. At present (3 P.M.) she is tranquil; but some part of the morning was again noisy, and required restraint. Pulse steady and good; but an hour later I found it weak and irregular; lips fully red. She refused to put out her tongue when asked; said she did not choose. Rept. pil. h. n., ant. pot. tart. gr. $\frac{1}{3}$ + mist. C. \mathfrak{z} j. 4tis horis. 22.—Is tranquil and rational; had a good night; says she remembers nothing of her illness. Pil. c. mist. quater die; rept. pil. h. n. 23rd.—Is rational and quiet, pulse 74, quiet, soft. Wants to go home. Mist. quinae \mathfrak{z} j. ter die; p. c. pil.; porter Oj. 25th.—Seems more inclined to ramble to-day; says she can't make out where she lives, and that she did not sleep well last night; but it appears she did. Manner rather sharp; talked very strangely to her friends yesterday; remembers now all her story, and relates it. 28th.—Remains in an excitable state; talks volubly to me; says she can't remember where she lives; but knows that her children are left alone, and is very anxious to get back to them; sleeps and eats fairly well, but is apt to get over-excited at times, and to ramble then. Left hospital at her own request next day.

"There can be no doubt in this instance that the cerebral disorder was the result of mental causes—anxiety, and vexation. The pathological condition which these induced was not simple exhaustion and depression, as one might have expected, but great irritation, which was calmed very favourably by the tartar emetic, and recurred in some measure when the latter was discontinued. Those who think that this drug is a destructive agent must have a very different experience of it to mine and that of many excellent observers. Like several of our best remedies, it is very capable of doing harm, if not judiciously administered; but this is no reason for abstaining from its use in appropriate cases. The conception which appears to me best to fit the operation of tartar emetic is, as I long ago suggested (*vide* Brit. Med. Journ., Mar., 1857), that it acts as a *tissue-sedative*; and this whether it be administered for the cure of inflammation or extreme

nervous excitement. By a tissue-sedative I mean a drug which lessens the nutritive activity of the part, so that its altered (morbidly) vital actions go on more slowly, and it attracts in consequence less blood to itself. In the same class as antimony I place such drugs as ipecacuan, colchicum, potass. iodid., and mercury. Of all these I believe it is tolerably certain that they act in a diametrically opposite manner to the whole group of nerve-tonics. If quinine, iron, or arsenic cure inflammations, as they do occasionally, I can well understand that they do so by giving tone to the relaxed arteries and enfeebled vasomotor nerves, and thereby abolishing the previous excessive flow of blood to the part. But when antimony arrests asthenic delirium, or ipecacuan an acute dysentery, or colchicum a scleratitis, I cannot accept such an explanation, because these drugs, according to our best knowledge of their operation, have no invigorating or toning influence upon nerve and muscular fibre, but the very reverse. Ackermann finds that tartar emetic injected into the blood of animals lessens the intravascular pressure or tension, and remarkably diminishes the irritability of the heart. Surgeons are, or used to be, familiar with its relaxant effects in lessening the tonic contraction of voluntary muscles in cases of dislocation. No one of any clinical observation can admit, I think, that ipecacuan, colchicum, or mercury have other than a depressing effect on nervous and muscular power; and if this be the case, it is not difficult to conceive how, by paralysing vasomotor nerves, they may give rise to increased secretion, hyperæmia, and sometimes actual inflammation, as they do when their action becomes injurious and excessive."

We have quoted Dr. Handfield Jones's remarks at length, because they deal with an important question of treatment from an original point of view. There can be no doubt that most of those who practise specially as alienists would have refrained from giving antimony in the case reported by him. And why? Probably the argument would have been something of this kind: antimony is a very depressing drug; delirium here means debility or exhaustion of nerve-element produced by mental distress—an irritable weakness; you will not cure the mischief by further lowering the strength; if you give antimony you will probably prolong the duration of the delirium—at any rate, protract convalescence—and perhaps drive the disease into dementia. The right indications of treatment are to support the patient by frequent supplies of suitable nourishment; to give stimulants in moderation or not, according to experience of their effects; to use the warm bath, with cold to the head; and to place the patient in a room where she will be perfectly quiet.

Now, would this argument be correct, and would the plan of treatment founded on it have been as successful as the ad-

ministration of antimony was? Did not the antimony really stifle the delirium by lessening or arresting the morbid nutritive activity? We certainly cannot persuade ourselves that it did; and it would have been satisfactory to have had the history of the case after the patient left the hospital. It is quite evident that she was very far from well when she did leave; for she was excited, voluble, and rambling in her talk, and, worst symptom of all, could not remember where she lived. Would the poor woman have forgotten where she lived if she had not taken antimony? We do not put that question seriously, but it affords the opportunity for recording a suspicion that the administration of antimony in doses large enough to stop a delirium favours the lapse of the disease into dementia.

Dr. Jones's theory of its action as a tissue-sedative, lessening the nutritive activity of the part, so that its altered vital actions go on more slowly, is not inconsistent with that suspicion. There is no reason to believe that the action of the drug is limited to the particular elements of tissue that have taken on a morbid activity; and if the drug has no such special affinity, but affects all the tissue-elements of the body, it is difficult to perceive the foundation of the theory of its assumed virtue. It is surely desirable that the vitality of the parts in the neighbourhood of a morbid centre, or a morbid area of tissue, should not be lowered; a thoroughly sound vitality not only presenting the most effectual barrier against the extension of the disease, but exerting the best influence in bringing back to their natural allegiance the recalcitrant or revolutionary elements. What advantage is gained by reducing the power of authority and sound citizenship in order to reduce in equal degree the force of the riotous members of the community?

The following case, related by Dr. Jones, does not afford much evidence in favour of antimony; its termination, however, would probably have been the same, whatever treatment had been adopted:—

Mr. H., æt. 30, seen August 16th. Has long been intemperate, but not to any great excess. For twelve months has been queer-tempered and fidgetty about his affairs. Had an attack of melancholic character about three months ago; shut himself up in a room for some time. Is a healthy looking man, but is said to have got thinner lately. Has been ill some days; has had no sleep since the 13th; on 14th was driving his wife in a gig and had a fit; the same evening had a

second; never had any before. At present he is very delirious and excited, has delusions, sees flies, &c., on the wall; is anxious about his pictures. As he lies in bed he is constantly fidgeting, twisting up the bedclothes, and sometimes trying to get out of bed, but he does not appear to be violent. His manner and gestures indicate a state of tension of the nervous system. Bowels open; tongue clean; no appetite; not thirsty; pulse quick and weakish. Had three grains of opium last night, but did not sleep. Pupils of medium size. He was ordered ant. pot. tart. gr. $\frac{1}{4}$ + liq. opii. sed at. \mathfrak{mij} . + m. c. \mathfrak{zj} , 2dis horis, with brandy and milk and beef-tea alternate hours. This was at 3 P.M. In the evening he became very violent, struggling with those who held him, rushed at the windows, so that it was necessary to confine him. He then became quiet and slept awhile; soon after woke again, to sink and die about 5 A.M. He does not seem to have been conscious before death."

Two cases are related—one, a case of hysterical delirium, the other a case of mania following an epileptic fit—in which Dr. Jones believes the best results to have been produced by the inhalation of chloroform. In drawing any conclusion from these cases with regard to the value of chloroform in arresting delirium, however, it is necessary to bear in mind that the natural duration of the hysterical paroxysm of delirium is short, and that the mania connected with epilepsy, though violent while it lasts, furnishes the majority of the instances of so-called *mania transitoria*, so quickly does it usually pass away.

There are accounts of other cases in Dr. Jones's paper, each of which presents its own points of interest, but we have not space to quote them. We regret this the less, however, because the account in each case necessarily comes to an abrupt close when the patient leaves the hospital, so that there is no means of knowing whether the amendment which had taken place at the time of leaving really went on to recovery, or whether a relapse subsequently occurred. The extract which follows contains Dr. Jones's concluding remarks:—

"I have said that we have no exact knowledge of that pathological state which determines delirium; but though we cannot say in what respect of shape, or molecular constitution, or chemical composition, the nerve and nerve-cell of the delirious patient differ from those of the healthy, I by no means think that we are destitute of real and available information regarding its nature. Delirium may be taken as a type of *irritation* affecting a certain tissue and locality. This latter term, though sometimes objected to as a vague one, cannot be dispensed

with by the clinician, and conveys, I venture to think, to the experienced mind information of a tolerably definite kind. The following may be enumerated as the principal features of irritation. The part affected is *unduly impressionable*, is less tolerant of its natural stimuli than in the state of health. Its *functional energy is lowered*, it is less capable of doing its appointed work, but is much more readily set in action. At the same time *its nutritive actions are deranged*, its secretions (if it be a secreting organ) are often increased, or morbidly changed, while its vessels, participating in the general enfeeblement, no longer duly *regulate the blood-supply*, or restrain their contents from *exuding in excessive quantity*. In fact, it is a condition which ranks pathologically between pure hyperæsthesia or hyperkinesia on the one hand, and developed inflammation on the other, and approximates in different instances more or less to either: much depending, of course, on the tissue most affected, and on the construction of the part. Its motors may be any abnormal matter whatever in the blood, or even an undue supply of blood from relaxation of the arteries. It may be determined also by imponderable influences, as mental, electrical variations, influenzal miasm. Our clinical experience proves to us that it is not a constant condition, even where its principal phenomena are apparently identical. Thus, taking a very simple and typical instance of irritation, the so-termed strumous ophthalmia, where the hyperæsthesia (photophobia) is most intense, we find that the same remedies are by no means always appropriate. Quinine, iron, and cod-oil are successful in many instances; but in others small doses of tartar emetic are of much more avail, as stated by Mr. Chesshire. This is very much what we find to occur in disorders of the hemispheres and other nervous centres, and while it proves, I think, the varying *quality* of morbid state of nervous tissue, it also shows the general similarity of the derangements which occur both in the peripheral and central organs. The same view is supported by an interesting case mentioned to me by Dr. Greenhow, where a young man, convalescent from severe typhoid, had hyperæsthesia of the legs, which ceased when maniacal delirium set in, but returned with great intensity when the latter subsided. Here the delirium, the disorder of the primary nervous centre, was evidently the equivalent of the hyperæsthesia, the disorder of the nerve or its tertiary centre in the cord."

Dr. Blandford contributes some clinical cases of insanity to elucidate the question of prognosis, and to supply a want which he finds in our systematic books. In pursuance of his laudable mission of supplying what will not be found stated in books, and correcting what is stated in books, he has furnished a definition or description of insanity which cannot certainly be quarrelled with on the score of want of comprehensiveness. "Insanity," he says, "may be described, if not defined, as a want of harmony between the

mind of the individual and his external surroundings." We have read something of the kind before, though not as a description or definition of insanity, but in exposition of its mode of causation. It would be hard upon the poor man dissatisfied with his bad fare, his squalid home, his rags and misery to count him mad; it would be unfair to society to treat as insane the stiff-necked criminal who finds his miserable surroundings discordant to his nature, and insists on making things more harmonious by forcible appropriation of the superfluities of others; nor would it conduce to social well-being if the unhappy man whose wife had strayed from virtue's paths and made his house a hell, were shut up in an asylum, because he failed to bring about a harmony between "the mind of the individual and his surroundings;" but it would be quite as correct to describe discontent or crime in such language as to offer it as a description of insanity. However, it is only fair to add the whole of Dr. Blandford's observations on this point, as they modify somewhat the absoluteness of the proposition quoted.

"Insanity may be described, if not defined, as a want of harmony between the mind of the individual and his external surroundings. As life is 'the continuous adjustment of internal relations to external relations,' so any cessation in this process of adjustment causes disorder, mental or bodily. If the relations are themselves altered—if a man loses his fortune, or his friends, he must come into harmony with his new set of circumstances, or he perforce is thrown out of equilibrium, and 'loses his head.' If his brain becomes so disordered that he fancies his circumstances are all changed, the same thing happens; and when he attempts to right himself by force, or to rid himself of the entire burden, he is shut up for safety and for cure. Now our object, of course, is to bring a patient back to his former condition—to restore the harmony which existed, and which ought to exist, between him and the world in general. This we must, above all, try to accomplish. There is such a thing, however, as bringing a patient into harmony, not with his former life, but with asylum-life; and this is what happens not unfrequently."

When the madman's mind has been brought into harmony with asylum-life, is he no longer mad? or, if he is, what then becomes of the definition of insanity?

The first case which Dr. Blandford relates is interesting, as showing how recovery may occur after melancholia has lasted for years, and how greatly removal from an asylum may conduce to recovery:—

"The following is the case of a gentleman who was admitted into an asylum in November, 1857. The attack was the first, and recent, without assignable cause. He had all the characteristic delusions of melancholia—said that he had committed the unpardonable sin; nay, that he was himself the devil. He also fancied himself ruined, and that actions were being brought against him on account of non-payment of his debts. He thought that he had the leprosy of the Old Testament, and that all his friends were dead.

"Though this gentleman was melancholic in his delusions, his appearance and conduct were not so much affected as might have been expected. He was never looked upon as suicidal; he never refused his food; on the contrary, he ate heartily, and enjoyed that which was brought him. He was keenly alive to all the passing events of the day, whether political, strategical, or polemical, and was probably the best read man in London in the newspapers and current literature of *Mudie*. On the other hand, he was excessively shy, and liked to be quite alone; and all day long he paced his room with regular and unceasing tramp, so that none but the most apathetic of patients could endure to remain underneath. And when alone he used to cry bitterly, bewailing his fate, and ejaculating expressions of anguish. Immediately one entered the room all trace of his emotion was concealed. Unlike most melancholic patients, he was unwilling to talk to me of his delusions; but to his friends he spoke of them without reserve. He never asked to be allowed to go away, but seemed indifferent to his own concerns, succumbing quietly to an inevitable fate. When we forced him to go to the seaside, or to some sight, as the *Volunteer Review*, he would greatly enjoy it; but always tried to avoid going. So matters went on from 1857 to 1864, the patient becoming more and more shy and reserved, and less inclined to go beyond the bounds of the asylum; constantly crying and bemoaning himself when alone; but always chatty and agreeable, and taking an interest in all the events of the day.

"In the asylum he had everything he wished for. Self-indulgent by the nature of his malady and by constitution, fond of being alone with his books and papers, indulged and kindly treated—for no one could be hard towards the gentlest of men—he might have gone on to the end of his days, enjoying the lazy luxury of his mild melancholy, had not the harmony of his new life been broken up and marred.

"A domestic affliction, the heaviest that could befall him, first woke him out of this tranquil life. It might have been thought that this would increase his melancholia, and dash him down to a worse state. But it was not so; it necessitated action, for he was brought into new relations. He must act for himself, or give up everything to others' hands; yet even now he made no request to be allowed to do so. It was so plain, however, that he was capable, that the attempt was insisted on. But half consenting, he went away with a friend upon trial. The friend fell seriously ill, and my patient had to nurse

him long and anxiously; and by the time the friend recovered, the nurse had forgotten that he was the patient; and no one from that time has more thoroughly and keenly enjoyed life and its pleasures. One cannot help thinking that it might be possible by breaking up the quiet monotony of asylum-life to cure others besides this patient. There is such a thing as making asylums too comfortable."

In another case of melancholia recovery occurred five years after the commencement of the illness. Such recoveries are rare, as Dr. Blandford observes, in those affected with monomania characterised by hallucinations and delusions not melancholic. "But where great depression is the prominent feature, it appears that the delusions attending it will vanish if the feeling itself passes away; and we learn from such cases once more the lesson that the greater the emotional disturbance in any insane person, the more favourable is the prognosis."

Here again is a proposition surely too absolute. The emotional disturbance is very great in those who suffer from moral insanity, but the prognosis is anything but favourable.

The rest of Dr. Blandford's paper is occupied with the short notes of some cases of transient mania, which he brings forward as examples of *mania transitoria*. He says that this is a form of insanity which is scarcely alluded to in systematic books. But the cases which he has described would hardly be considered as illustrations of mania transitoria by systematic writers. They are, strictly speaking, cases of ordinary acute mania, presenting the usual symptoms, and lasting only for a few days or weeks. Now, there is hardly any systematic writer who fails to insist particularly on the varying duration of acute mania, and indeed to illustrate it by examples. So far as the term, mania transitoria, or furor transitorius, has any other value than as being a convenient statement of the fact—so important medico-legally—that a brief paroxysm of genuine madness may occur, and pass away in a few hours, it is usually confined to the transient mania that occurs sometimes in connection with epilepsy, proceeding directly from an epileptic attack, or apparently taking the place of it; or if not confined to the case in which the connection with epilepsy can always be positively established, the term is still restricted to brief paroxysms of violent fury that soon end, leaving the patient scarcely conscious, or quite unconscious, of what has happened to him. It can hardly be applied with propriety, if it is to have any exact meaning, to ordinary cases of acute

mania which go through their regular course, and are remarkable only because they do not last so long as usual. The labour of recent investigators has been to discover the exact relations of these short but violent paroxysms of true furor transitorius, and especially their relations to masked forms of epilepsy; and we are not quite disposed to think that they deserve the reproach of scarcely alluding to a subject, the fundamental bearings of which their reprover hardly seems to have fully grasped, and to the literature of which he has unwittingly done injustice.

What we are sorry to miss in Dr. Blandford's cases is an exact clinical history, which would enable us to form an opinion of the cause and the real character of the attack, and to ascertain the elements of a prognosis in similar cases. We have instead short notes, which merely tell the duration and indicate the treatment.

The following case may serve as an example:—

“A short time ago I saw a single lady, æt. 45, who was beginning to undergo the change of life. She had on the previous day a violent outburst of acute mania, requiring to be held by several people. This was the fifth attack of the kind, the first having occurred when she was no more than 22. On the day I saw her she had not slept, her pulse was 120, hard and strong, her skin was hot, her face flushed and eyes injected: there was every sign of increased cerebral arterial action. She opened her eyes widely and stared at me with a peculiar and wild expression, talked in a rambling and eccentric style, coherently, but incorrectly, in a way quite foreign, as I was told, to her usual manner. Her tongue was pale and moist, the urine pale and plentiful, and her bowels had acted freely after a dose of calomel. She was ordered a warm bath, with cold to the head, and some extract of henbane and tincture of digitalis. The next day she was in every way better, and had slept four hours. From this time she gradually improved, having no return of the acute symptoms; and in a week, beyond a certain amount of languor and nervousness, there was nothing the matter with her. When she got better she told me a variety of delusions which she had experienced, such as that articles of furniture were alive, that those about her were enemies going to attack her, and such like. The attack was manifestly not one of mere hysterics, but was in all respects one of acute mania, but of a very transient character. So far as I could learn, her former illnesses had been more protracted, though of the same nature; and it is somewhat remarkable that at her time of life she should have had a milder form of her old malady.”

Dr. Blandford's concluding remarks have an important practical bearing:—

"How are we to tell whether the attack will be transient or not? To decide this, at a glance, is not easy; but it is to be remembered that two or three days will solve the question for us. The symptoms, both of transient and protracted mania, vary so much in different individuals, that it is difficult to lay down strict rules of diagnosis. It is likely, however, to be transient, if its invasion is very sudden, and if there is a definite and sufficient mental cause, as a shock or fright. It is likely to be prolonged, if its approach has been very insidious and gradual, and if there has been no assignable cause. If the bodily condition is much affected; if the tongue is brown and dry, the urine scanty and high coloured; and if the bowels can hardly be moved by the strongest purgatives—it is not likely to pass off in a few days. If, on the other hand, the bowels are easily and freely opened, if the urine is copious and pale, and the tongue pale and moist—we may hope that it will soon be over, especially if there is extreme violence, bearing no proportion to this slight bodily disturbance. And our decision will be aided by the advent of sleep, if this occurs in a day or two. If the disorder is to run the ordinary course of acute mania, sound and long sleep is not to be expected at so early a period. If former attacks have occurred, our diagnosis will be materially assisted by the history of them."

Dr. William Ogle contributes a readable paper on "Aphasia and Agraphia," the object of which is to examine how far the pathological records of St. George's Hospital and his own experience harmonise with the hypothesis that the faculty of articulate speech is connected with the posterior part of the inferior or third left frontal convolution. The conclusion at which he arrives, from an examination of twenty-five cases, is that there is irresistible proof that the left hemisphere is more intimately connected with the faculty of language than is the right, and that there is very great probability that the organs of language are, if not in the exact position which Broca assigned to them, in close proximity to it.

We doubt much whether his arguments and illustrations will produce conviction of the irresistible proof of the first conclusion, or of the probability of the second, in the minds of others than those who are prepared to welcome any evidence, however defective, in favour of a foregone conclusion. It were much to be wished that some one of large understanding and good critical capacity, thoroughly acquainted with the latest researches of psychology, and especially with the essential part which not the movements of the tongue only, but all the voluntary movements, have in the mental life, and familiar in addition with all that has been done towards the

pathological elucidation of aphasia, would undertake the work of laying the foundations of a really philosophical method of studying and treating the subject. This has not yet been done, but the time has come when the task might properly be undertaken. To us it has always appeared most strange that any one could seriously believe the faculty of articulate language to be placed in a part of the third frontal convolution of one side of the brain; surely there has been nothing like it in psychology since Descartes sequestrated the soul in the pineal gland.

It would not be doing justice to Dr. W. Ogle's paper, however, to dismiss it with a few hasty criticisms; while it would be necessary, in order to treat the subject satisfactorily, so much to enlarge and deepen the foundations of the discussion that the space at present available would be quite insufficient for the purpose. We must, therefore, defer to a more convenient season a discussion of the observations with regard to aphasia, an examination of the different theories which have been propounded concerning it, and an exposition of the bearings of the pathological generalisations on certain problems of mental science.

PART III.—QUARTERLY REPORT ON THE PROGRESS OF PSYCHOLOGICAL MEDICINE.

Italian Psychological Literature.

By J. R. GASQUET, M.B., Lond.

THE accumulated numbers of the "Archivio Italiano per le Malattie Nervose," for 1866 and 1867, contain so many valuable papers that I am most reluctantly compelled to choose only the best, or those most interesting to the readers of the "Journal of Mental Science," and to omit much that is good.

In the six numbers of the "Archivio" for 1866, Dr. Biffi's very faithful account of the meeting of the Medico-Psychological Association at Edinburgh, in July of that year, deserves a prominent notice. He took this opportunity of strongly urging such Italian asylum physicians as might visit the Paris Exhibition to cross over to

England, and assist at the London meeting last summer of their English *confrères*, "who are remarkable for their dignified conduct, their practical solidity, their high culture, and their single-hearted but modest devotion to their duties."

A sufficiently clear account of all the papers read at the meeting is given, but Dr. Biffi gives most details of Dr. Webster's paper on Gheel, and of the discussion which followed, and adds his regret that Baron Mundy, "the strenuous defender of Gheel," was detained in Austria by the war, then almost at an end, and that the Society thus lost the benefit of his opinion. But, although rightly absent in person, Baron Mundy's good wishes were, he remarks, with the Association, and his "gentil pensiero" of presenting the bust of Dr. Conolly to the society of which he had been the most illustrious member, showed that the horrors of war had not made him forget his favourite pursuit, or his English friends.

Dr. Livi, the learned professor of Medical Jurisprudence at Sienna, contributes two medico-legal papers on *Homicidal Mania* and "*Aphrodisiomania*." He treats of the former as caused by (a) hallucinations, (b) melancholia, (c) instinctive monomania (irresistible impulse), (d) intellectual monomania, giving cases illustrating each of these modes of production. In the article on "*Aphrodisiomania*" (a word, by the way of Dr. Livi's own coining, and worthy of general acceptance), he goes into all the insane manifestations of the sexual passion, viz., Erotomania, Satyriasis, and Nymphomania; also the two rare affections, "*Gamomania*" (a diseased desire to marry no matter whom, without any erotic symptoms), and that most repulsive form of unnatural passion for violating dead bodies, of which the case of Bertrand is the best known example. There is nothing particularly new in these two papers, but they contain some valuable cases, and give a list of authors to be consulted, which may be very useful; and Dr. Livi's own opinions are thoroughly practical.

Dr. Biffi makes some interesting remarks on the article in this Journal for April, 1866, on *Sisterhoods in Asylums*. He observes that they have their advantages and disadvantages, for if, on the one hand, work done for charity is very superior to that done for hire, there is the drawback of a separate government independent of the physician. He considers that, on the whole, Damerow at Halle, and Roller at Illenau, have made the nearest approach to a solution of this very important question, by using every possible means to elevate the character of lay asylum attendants.

It would appear from Dr. Mantegaza's experiments that great pain or fear produces a very notable diminution of animal heat, varying, in rabbits, from 1.22° to 4.46° F. The lowest point was generally reached from one to five minutes after the pain, which was only momentary, had ceased, and the temperature remained below par for an hour and a half, or even longer; it would, probably, have fallen still lower, had there not always been violent muscular movements.

He attributes this diminution of temperature to a slackening of the heart's action, which is always observed to be in direct proportion to the degree of suffering; although very slight and momentary pain makes the heart move quickly, owing no doubt to the animal's movements. In the rabbit the pulse may fall, after one minute of intense pain, from 228 to 84 beats per minute. Pain has less effect upon animals weakened from loss of blood or fasting than upon healthy ones; but if they are very weak, extremely severe pain may kill instantly, by arresting cardiac action.

Professor Quaglino publishes a remarkable case of a Turin banker, aged 54, who had had a year before an apoplectic fit, resulting in left hemiplegia; and, at first, complete blindness. After a time, he recovered entirely his ordinary acuteness of sight at all distances, but never regained the power of perceiving colours. Everything appeared to him black and white only, and he was unable to remember the visible qualities of any object he had seen. On examination, the right half of each retina was found to be completely insensible, and the retina of the right eye was more cloudy and vascular than the left.

An introductory lecture to his chemical course on Psychiatry was delivered by Professor Verger at Milan, the subject being, "*Il vulgo e la medicina mentale.*" He describes with great eloquence and humour the well-meant, but dangerous attempts of amateurs to deal with the complicated results of mental disease; and he urges that the only true remedy for the present state of things is to popularise the study of cerebral physiology and pathology as much as possible.

In another paper, Dr. Biffi informs us that considerable improvements have been effected in the Asylums of the province of Milan. Thus a new asylum, capable of containing 300 patients, has been opened at Mombello, about 40 miles from Milan, on the site of an old palace. It stands in the country, and the patients will have every variety of farm work to occupy them. Much, however, still remains to be done. The Senavra and the insane wards of the Ospitale Maggiore are extremely overcrowded, and in very damp, unhealthy, gloomy positions. He fears that the unhappy financial and social state of Italy will probably prevent the other provinces—less enlightened and poorer than the Milanese—from following even this very limited step towards a better state of things.

There is one very elaborate medico-legal report, which requires no special notice, and several reviews and extracts from other periodicals.

The analyses of the Asylum reports include those of Halle, Illenau, the Crichton Institution, and Haywards Heath; the English reports are particularly commended, and attention is called to the variety of occupations provided, and the absence of restraint in the Sussex County Asylum. The Italian reports are not so detailed as might be desired; the best of them being decidedly that of San Servolo, at Venice, by Padre Salerio, the physician to the establishment. In this asylum, for the three years 1862-3-4, the proportion of cured was 42, and of deaths

17 per cent.; 41 cases of general paralysis were admitted, 37 presenting the usual "délire des grandeurs," and four presenting melancholic symptoms; in 29 of these, inequality of the pupils was well marked. The proportion of general paralytics and epileptics appears to be considerably higher at San Servolo than in the other Italian Asylums.

Dr. Castiglione gives an analysis of an inaugural thesis, by Dr. Koster, on the influence of intermittent fevers on insanity; seven cases are reported, which were cured by the occurrence of intermittent fever, and seven which were greatly benefited. Nasse has given similar cases in which intermittent and typhoid fevers have cured insanity of more or less considerable standing; no doubt by their action on the nervous system, which has sometimes made them cause insanity in persons of previously sound mind. Dr. Castiglione remarks on this subject, that, having long been in charge of an asylum (the Senavra), where malarial fevers are common, he has never seen more than a temporary improvement where intermittent fevers occur in a person suffering under any form of insanity.

We may begin our examination of the "Archivio" of 1867 with an article on the *Statistics* of the Italian asylums, including Rome, for 1866. The year 1865 closed with 8,262 patients in asylums, 4,431 of these being men and 3,831 women. 4,400 patients entered during the year, 2,813 were discharged, and 1,363 died; so that the year ended with a total of 8,486 (4,517 males, 3,969 females). We are unfortunately not told what proportion of those discharged were cured; but, from the statistics for Northern Italy, it would appear that the proportion of cured or relieved was, for men, 402 out of 1,196; and for women, 283 out of 1,137. We are promised more details for 1867, especially as to the proportion of cures and of second attacks.

Dr. Castiglione makes some general suggestions for the improvement of the *Lunacy Laws* in Italy. He lays down with singular clearness and brevity the general principles which should guide the civil authority in ordering deprivation of liberty; or the criminal courts in looking upon insanity as a bar to punishment; and then gives a sketch of a proposed law, embodying the rules he has laid down, which resembles in its general features the French law of 1838. Abundant safeguards for personal liberty are provided; but that every case of insanity should require to be established by an appeal from the friends to the municipality, and from the municipality to the civil tribunals, seems to our English ideas needlessly complicated.

Dr. Livi gives a medico-legal description of *Pyromania* and *Kleptomania*. He considers them under the same general heads of causation as homicidal mania, and gives an interesting series of illustrative cases and a bibliography, but nothing very original. "Most pyromaniacs," he remarks, "are young (children are notoriously fond of playing with fire) and more often girls than boys; puberty appears to be the most common time for the outbreak of this kind of insanity, and imitation of a fire, seen or heard of, its usual exciting cause. Kleptomania, again, is most frequent

at the time of pregnancy or the climacteric, and less often during lactation or disordered menstruation; when it occurs at other times it is generally connected with evident cerebral disease, as epilepsy, hemiplegia, strabismus, injuries to the head, &c.

Dr. Biffi gives a short description of the plan for *Pavilion Asylums* published by Dr. Robertson in this Journal last year. He looks upon it as a legitimate development of the idea of detached buildings, already put into execution in many asylums, and recommends its study very strongly to his Italian *confrères*.

He thinks it particularly applicable to England, "for in that country of frequent thick fogs, which sometimes seem to turn day into night," air and light are required in greater abundance than in more favoured climes. Too much air, indeed, is admitted into English Asylums to please our visitors from Italy, who, "well muffled up and hat on head," are astonished to find our patients endure the open doors and windows, "which in England are left open with as much care as is taken on the Continent to exclude draughts." Evidently Dr. Biffi must have suffered much, uncomplainingly, from the severity of an English July! The greater amount of separation obtainable in pavilion asylums would be more congenial, he remarks, to the English than to the Italian character. He fears that they would be too costly for the slender funds which can be devoted in Italy to Asylum purposes.

The propriety of the term "*Reasoning Insanity*" is objected to by Dr. Verga. He begins by arguing that the faculty of reasoning proper (the judgment) is unaffected in all but cases of dementia. I regret very much that the space at my disposal does not admit of a more extended account of the very able analysis by which he endeavours to show this. This is a first reason for not employing the phrase, and he further points out that it is used in two very different senses by Griesinger and Brierre de Boismont for a slight stage or form of mental disease, and by others as synonymous with "moral" or "instinctive" insanity. He proposes to replace the term in this latter intention by "insanity without delirium."

The *Influence of Meteorological Conditions on Insanity* is discussed by Dr. Lombroso at great length. He begins with an exhaustive history of the various opinions held on this subject, from the Sanscrit and Chinese writers down to our time, and then gives the statistics of admission into the asylums of Northern Italy for the last few years. I will not quote figures, for, as the statistics are not drawn up on any uniform plan, they would only mislead; but I extract the general results. Out of a total of 9,960 patients, the largest number were admitted in the month of June, and the other months of the year are, in order of number of admissions, as follows:—July, August, May, April, October, December, March, September, November, January; the fewest admissions being in February. This order varies in different places; thus at Venice and Pavia, the greatest number were admitted

in October; at Turin, Florence, and Alessandria, in July; at Lucca and Milan, in August; while at Ancona, May is the worst month. These differences are more easily explicable than the influence of sex; which is, nevertheless, decided and constant; for instance—in Piedmont, women are admitted chiefly in August, June, and July; men in May, June, and July; at Milan most men have been admitted each year in May, most women in March. Dr. Lombroso next lays before us a series of tables extending over the seven months from November, 1866, to May, 1867; which are ingeniously constructed to show at a glance the meteorological state (barometer and thermometer, state of moon, force and direction of wind, storms), and the number of paroxysms of ordinary or epileptic mania occurring in his asylum at Pavia on each day during that time.

The general conclusions he draws from these and other data, are:—

1. A moderate heat (not exceeding 77° F.) does not appear to have any great influence in producing paroxysms in the insane; but, if the thermometer reaches 85° or 90°, the number of exacerbations is much greater than usual.

2. Cold (25°) has a very slight effect in increasing the number of maniacal attacks; it diminishes the number of epileptic fits.

3. When the barometer rises higher than 29.8 inches, the number of exacerbations is increased; violent barometrical oscillations in either direction are preceded and followed some days by a greater or less number of paroxysms, according to the amount of oscillation.

4. The degree of humidity of the air appears to have no effect.

5. There were fewest maniacal fits on the days when the wind was E. or S.

6. It is not clear whether positive electricity, or the presence of ozone, has any effect upon the insane. When the air is in a state of negative electricity, the number of attacks seems to be slightly increased.

7. There seem to be more attacks at the new and full moon, and at the summer solstice. The slight shock of earthquake felt at Pavia on March 16th, 1864, was preceded by two days of unusual disturbance among the patients, and followed by unusual quiet.

8. Barometrical changes appear to be felt more keenly when the mind is feeble than when healthy; the lower animals are more sensible to them than man; and, among asylum patients, those in a state of dementia, or old epileptics, notice them more than the others.

9. Epileptics have more attacks on hot days, except in the month of August, which is favourable to them; they are at their best in winter. They have more attacks when the barometer is low, and two or three days before it rises; the south and east winds have a bad effect upon them. As to lunar influences, they have fewest attacks during the second quarter; the new moon seems to be favourable to them.

In many of these points, epileptics are very differently influenced from other insane patients.

10. The considerable meteorological variations of autumn and spring have a good effect on chronic cases.

11. Most deaths occur in the coldest and hottest months, especially in cold and damp weather.

12. To apply practically these conclusions, it may be remarked that persons predisposed to insanity should be protected especially from great heat and from barometrical variations. Epileptic and demented patients should be kept in places not liable to great heat or barometrical changes. Might not the application of ice to the head benefit the former? Those suffering from chronic mania should not be protected from meteorological variations.

13. Suicides, murders, and all crimes of violence are most frequent in the hot months of the year; so are revolutions.

I trust that the importance of the subject will excuse my having dwelt somewhat too long on this very interesting article, and that further observations will confirm the results which Dr. Lombroso has taken so much trouble to obtain.

The remainder of the "*Archivio*" for 1867 is made up of medico-legal reports, extracts from home and foreign periodicals, letters to the editors, &c. The most prominent of the extracts are—a translation of Dr. Addison's paper on "*The Chemical Pathology of the Brain*;" some very good remarks from a Bologna journal on the differential diagnosis of paraplegiæ of cerebral, spinal, and peripheric origin; and a series of observations by Dr. Lombroso on the weight of the body in insanity, which entirely agree with those of Nasse and Albers in proving that the insane—and especially those in a state of dementia—weigh less than they should, and that a decided increase is one of the most certain signs of convalescence.

Faradisation continues to be employed in the treatment of melancholia, especially at Milan and Rome. The results are said to be satisfactory in recent cases, particularly when mutism or refusal of food has been a prominent symptom.

I have not noticed a very detailed review of Schiff's lectures on the functions of the different parts of the encephalon, and Lussana's account of the cerebral convolutions, because I could not include any adequate analysis of them within reasonable limits; but I hope to be allowed to give, in some future number, an account of these and other recent Italian works on the nervous system. Want of space, as I said in the beginning, is my only excuse for any apparent invidiousness in passing over so much that is interesting in this excellent periodical.

French Psychological Literature.

By JOHN SIBBALD, M.D. Edin., Medical Superintendent of the
District Asylum for Argyllshire

(Concluded from the *Journal of Mental Science*, January, 1868.)

1. *Annales Médico-psychologiques*, vol. vii. and viii. for 1866.—
(Concluded.)

Pathology of the Brain in Cholera.—Dr. E. Mesnet devotes a paper to the consideration of the cerebral lesions observed in this disease. With the first period of the disease, that of prostration and enfeeblement, are associated functional disorders of the ganglionic nervous system; with the second, or reactive period, are associated those cerebral complications to which Mesnet directs our attention. In the cases of three persons who were seized with choleraic symptoms, while under the influence of alcoholic intoxication, the algidity and cyanotic symptoms did not come on. But about the tenth day of the disease a condition undistinguishable from delirium tremens made its appearance, and, after continuing three days, gave place to convalescence, which was inaugurated by an abundant and apparently critical perspiration. In general, he says, the discord between the nervous functions of animal life and those connected with relational existence is very striking. "There is nothing more affecting than the appearance of the asphyxic stage of collapse when the patient is in continual movement, when his features and skin are corpse-like, and visceral innervation appears to be extinguished, when all organic functions appear to have ceased, and when, nevertheless, his intellect is preserved and he can converse with us up to the last moment. The mind has no longer its natural vivacity; the conceptions are languid; the memory requires to be stimulated; but when the patient is roused and the attention fixed, correct answers are obtained to questions put. The semi-comatose condition in which he is found is not the coma of cerebral disease, but a sort of drowsiness, which results from the general exhaustion of organic life. The benumbed condition of the senses is, in part, the cause of slowness of cerebral action; less sensitive to external stimuli, they transmit imperfect impressions, which are followed by obscure sensation. The hearing is almost lost, vision enfeebled, and sensibility in general obtuse. As soon as the collapse begins to pass off, and reaction supervenes, the intellectual faculties recover from the torpidity to which we have referred, and the patient, who is more or less aware of his condition, becomes conscious of what is going on around him, and directs a restless attention to it.

"But the encephalic nervous functions, which we have seen preserved in the midst of the most urgent dangers of cyanosis and asphyxia, may be involved during the period of reaction, and may,

in their turn, become the expression of pathological conditions to which the majority of those affected by them succumb. Six of our patients presented cerebral symptoms of a meningitic character, which supervened from the fourth to the fifth day of the reaction. Four died and two recovered; but in these last the cerebral complication had not attained complete development." In the other four the choleraic symptoms were not very severe, and the reaction commenced moderately and steadily. Suddenly, however, it became irregular and, as it were, vacillating in its progress. The patient complained of cephalalgia; the eyes were restless, the conjunctivæ injected, the mouth dry, and very soon noisy and violent delirium set in. The aggregate of these inflammatory symptoms, to which were added picking the bed clothes, subsultus tendinum, contraction and irregularity of the pupils, sometimes squinting, and almost always rigidity of the neck, with throwing back of the head, was the symptomatic expression common to these four patients. In two of them there was from the beginning complete anæsthesia of the whole surface of the body. It was about the fourth day of the reaction that the head became affected and the meningitic symptoms appeared.

The *post-mortem* appearances in these cases were not such as to afford any decisive evidence of meningitis. In three cases the surface of the brain was a little dry and slightly pitchy (*poisseuse*); the superficial layer of grey substance was slightly pink, and the white substance studded with puncta vasculosa. In one case the membranes were less transparent than usual, and in some points were of pearly tint. Here and there, in the course of the vessels, and especially in the neighbourhood of the Sylvian fissure, there were fibrinous filaments attached to the membrane. Mesnet details the pathological appearances in these cases at considerable length, but admits that in the three cases the evidence of meningitis is not satisfactory, and we would be inclined to the opinion that he might have included the whole four. He attributes, therefore, the occurrence of the cerebral symptoms to a predisposition, hereditary or acquired, such as determines the occurrence of cerebral complications "in the course of pneumonia, erysipelas, rheumatism."

The following case is interesting, both on account of the symptoms and the treatment:—"G—, twenty-one years of age, navvy, was admitted to the hospital on account of slight attack of cholera; his constitution was robust, he had never been ill, and was not habitually intemperate. In the convalescence from cholera he was suddenly seized, on November 7th, with marked contraction of the flexors of both fingers and toes, with slight trismus, and retention of urine, apparently due to contraction of the sphincter vesicæ. During the days immediately following he suffered from intense fever; the retention of urine continued, but the spasms had sensibly diminished. The intelligence was complete. During the night of the 11th and 12th November he had

exciting dreams, and talked a little during his sleep. On the morning of the 12th his appearance was altered. In the evening we found him in great excitement. He was intensely febrile, his face was much flushed; he suffered from frightful lancinating pains in all his members, in the chest, and especially in the dorso-lumbar region. At the same time he had tingling in the hands and feet, but the cerebral functions were absolutely preserved. The 13th.—In the same condition; we were apprehensive of a spinal meningitis, and ordered him to be cupped in twenty places along the spine (*nous prescrivons vingt ventouses scarifiées le long du rachis*), at the same time giving opium in full doses. After the cupping, which he bore patiently, he seemed to experience some relief; but all at once, in an access of sudden delirium, he seized from his bed-table his leaden pot (*urinoire de plomb*), and, like a maniac, struck repeated blows on his own head.

“The other patients rushed to him; but he resisted, and cried out that he wished to kill himself. A quarter of an hour after this attempt at suicide, calmness returned, and he emerged from this state of intellectual disturbance as suddenly as he had entered it. He had no remembrance of what had passed, and was astonished when he was told what he had done. There were six transverse wounds on the head, in each of which the bone was laid bare. Two days afterwards erysipelas appeared at the root of the nose, far from the wounds; but during the following days it extended itself, became complicated with coma, and he died. Post-mortem examination revealed no lesion of the brain or spinal cord. Subsequent inquiry failed to discover any hereditary tendency, either to epilepsy or insanity.

Medico-Legal Report on the Mental Condition of the Abbé Ch—, by Dr. N. Lafitte.—There is nothing of peculiar interest in this case except, perhaps, that the patient wrote a good deal of poetry of an eccentric character, some of which displays a certain amount of ability. He was brought under the notice of the authorities in consequence of being found on the roof of the church at Thermes, in the Canton of Fournels, where he was tolling the bell violently. He obstinately resisted all attempts to induce him to descend, and replied to the curé and other authorities by two pistol shots, which, however, appear to have been only blank. While an attempt was being made to force the door of the church, the abbé leaped from the roof of the church on to that of the sacristy, thence to the ground, and fled across the fields. The conclusions arrived at by M. Lafitte are—1. That he laboured under a melancholia, characterised by ideas of persecution and poisoning. 2. That this disease has existed since the year 1850, and, depriving him of free-will, relieves him from responsibility for his actions committed on 10th October, 1864, the date of the escapade. And 3. That it is necessary for public order and personal security, that he should be placed in an asylum. A sample of his literary talent may be given in the fol-

lowing extract from a composition, in which he satirises "un directeur de femmes":

"Liqueurs, sirops exquis, ratafia vanté
Confiture, salep violent de tous côtés,
Car, de tous les sucres en pâte ou bien liquides
Les estomacs dévots furent toujours avides."

Medico-legal Report on the Condition of Baptiste Blanc.—This is a paper by Dr. V. Combes, on the case of a man who had been several times apprehended for theft. The first time he had stolen a cow, but was acquitted on the ground of insanity. The second he was accused of thefts committed in several houses, and on this occasion he was condemned to some months' imprisonment. He was again apprehended for stealing a sum of money out of an inhabited house, and for this he received three years' imprisonment. A few months afterwards he was again committed for a series of thefts; and on this occasion M. Combes was called upon to make the report which forms this paper. The behaviour of the accused while under medical observation was either that of an insane person or of one who simulated insanity, as he exhibited incoherence in conversation, loss of memory, and eccentricities of conduct. Relying, however, on the facts that he presented no signs of bodily ailment, that it was impossible to make the history of the case accord with any known variety of insanity, and that the signs of insanity only occurred when it was for his own interest, the reporter concluded that he was conscious of his condition and master of his volition, and consequently was not insane.

Cause of Overcrowding in Asylums.—"It is scarcely fifty years," says M. Berthier, "since the insane were first confined in asylums, except in rare cases by the friends, and in other cases by the authorities, in consequence of some one having suffered injury by their agency." At present, however, the number of persons resident in asylums is so great that the public in France has been so much alarmed by the gravity of the condition that these establishments are, "so to speak, subjected to a siege." The object of M. Berthier's present paper is to discuss the causes of this great increase in number, and to endeavour to indicate the remedy. He thus describes the manner in which persons are sent into the public asylums at present:—"A poor person is seized with insanity; it is hoped that it will wear off; generally it remains. People become anxious, and have recourse to the mayor. Backed by his instructions, the magistrate gives a deaf ear, in fear of squandering the charity of the parish. The position becomes more serious; delusions take firmer hold; the patient breaks out; the local authority, convinced, ends by a provisional arrest, founded on medical certificate. The prefecture (Paris is an exception) temporises, in the hope of leading the

relatives to share in the expense of boarding him. Then the patient is brought to us, debilitated, with scarcely a chance in his favour, and, having exhausted his means, to help in his turn to populate our wards for chronic cases. Besides, in consequence of improving hygiene and increasing care, mortality diminishes, and the number of discharges no longer equals that of the admissions." Thus he attributes the overcrowding partly to improper treatment of the early stages of insanity, and partly to improved treatment of its later stages. He also believes, however, that the social condition of the people is associated with an actual increase in the prevalence of nervous diseases, and consequently of insanity. "The blood, impoverished, no longer regenerates itself in the pure races; the nervous system, imperfectly nourished and badly balanced, like a steed without bridle or a boat without pilot, is left to follow the bent of its unregulated impulses. Our peasant girls have the vapours of the *petites maîtresses* of the Regency, whence dates the invasion of this calamity.

"The abandonment of gymnastics, ill-assorted unions, and overwrought brains, are its exciting causes. Mead (of London), who lived at that period, attributed the evil to too much rest of body and agitation of mind. It is this which the Scotch Cheyne sought to prove when displaying the manifest increase of what are called nervous diseases. Fifty years later, Barthez, in his work entitled '*La Science de l'Homme*,' also gave expression to the same doctrine; and Pinel did not hesitate to inscribe it at the head of his immortal treatise. Thus we have a nervous constitution continuing to the present day, 'characterised by the gradual production of hysteria, of melancholia, of hypochondria, of epilepsy, of mania, of paralysis, and of suicidal insanity. These are the necessary consequences of want of self-control, the unloosing of the lower passions, the excess of intelligence, and of the insatiable love of lucre. After a time mental alienation, the ultimate and fatal result of the nervous state, having become as common among the poor as among the rich, will absorb all the resources of public charity.'

To remedy the evil, M. Berthier declares that palliatives are useless; and under this head he includes colonies, cottages, separate blocks, and workshops. In order to arrest it, society must recognise that "morality and education are the culprits." In order to diminish the number of the insane in asylums, it is necessary to diminish the number of admissions, ascend to the causes, and operate upon the hygiene of the family. To attain this object, the fundamental vice of our education must be removed. Ideas of duty and responsibility must be taught as well as grammar and mathematics." Such is the solution of the question presented by the writer, but we think that to those best acquainted with the subject he will appear to have penetrated little further than the threshold.

Insanity with Predominance of Grandiose Delusions.—M. Baillarger gives the first part of a paper whose object is to decide whether a patient who labours under grandiose delusions, and after a time shows symptoms of general paralysis, should be considered, according to the ideas of Bayle, as having been affected with general paralysis from the first, or whether, following Esquirol, the first stage ought to be looked upon as a simple insanity which ends in general paralysis, as it might have ended in dementia without paralysis; or lastly, whether some other view is more correct than either. "Very certainly," says M. Baillarger, "these forms of insanity establish at least a very active predisposition to general paralysis. This predisposition, so peculiar to ambitious delusions, can only be explained by the existence of a special element, which, while rendering the prognosis more unfavourable, suffices to justify the separation of these forms from simple insanity." He consequently proposes to class them under a new head, to be called congestive insanity. As, however, the whole essay is not before us, it will be more convenient to defer any further notice of the grounds upon which he supports this view.

The Connection between Constitutional and Diathetic Diseases with the Neuroses—by M. Edmond Dupouy. The nature of this paper, which obtained the "prix Esquirol" for 1865, may be best appreciated by the following quotation. "In acute alcoholism, the phenomena manifest themselves by an augmentation of vigour and muscular power, by an abnormal energy through the entire organism. Following this excitement come prostration, a deficiency of excitement, and a state of cerebral weakness. . . . What happens then? Either the alcoholic intoxication disappears by elimination of the morbid principle, or it is localised, and manifests its presence by a chronic condition, which may lead to lesions of the nervous centres and dementia. In other forms of intoxication, such as lead poisoning or ergotism, analogous nervous systems are exhibited. But if the chronic condition is admitted in these afflictions, with their train of nervous symptoms, mania, dementia, and epilepsy, is it not reasonable to consider scrofula, rheumatism, tuberculosis, syphilis, and all constitutional and diathetic diseases, which are only general intoxications, as being susceptible of exciting chronic delusions? Everything is consistent (*solidaire*) in the organism. From the moment when an individual is no longer in those normal conditions which constitute health, disorders of the intellect may be developed. In other words, we may say, that with an unhealthy modification of the intellect there is always a corresponding modification of the brain itself, or of those material conditions by whose aid it performs its functions." This paper is illustrated by a great number of cases and considerable research.

Medico-legal Report on the Mental Condition of Lucien Iniesta Y Garcia.—This refers to the case of a man who had killed or

wounded eleven persons in Madrid, in which the opinion of M.M. Brierre de Boismont, Baillarger, Moreau (de Tours), and Lunier was obtained. The accused was a man of thirty-two years of age, a vendor of old clothes. On October 8th, 1865, he entered the house of Pascasia Guñones desiring, to sell a mattress. This having been declined, he asked for a drink of water, and without waiting for permission he made his way into an inner room and took a drink out of a jar which he found there. As it was observed that he carried a dagger-knife under the sleeve of his coat, he was requested to go away. After some difficulty Guñones took him by the right arm and led him out into the middle of the street. As soon as he let him go, Iniesta drew the dagger and struck two persons who were standing near, and made off. While running through the streets he wounded nine other persons before he was captured, two of them being mortally injured. At the trial it was attempted to prove that he was suffering from transitory mania at the time of the deed; or otherwise that he must have been intoxicated. The judge, however, would not admit the defence, and Iniesta was condemned to death. M. Brierre, who drew up the report before us, found that there is a strong hereditary tendency to insanity in the family, fourteen relatives being ascertained to have been insane, including one homicide and one suicide. He also found that he had frequently exhibited noticeable eccentricities of conduct; among others it appears that on one occasion he was seen to micturate into a dinner plate and drink the liquid. It is also worthy of note, that an hour after the fatal occurrence, he ate his food with excellent appetite. The conclusion to which the reporters unanimously came is, that the man committed the acts during an attack of furious transitory mania, which might be partly due to drunkenness, but was principally the result of actual insanity.

Partnership with God.—M. Chatelain reports a remarkable illustration of eccentricity, in the case of a notary at Neuchâtel, named Vuagneux. He delivered to the pastors of Neuchâtel a paper which was not to be opened until after the death of both himself and his wife. When both these events had occurred it was examined, and found to be a formal deed of partnership between himself and the Deity, and a will, whereby he directed that the half of his property was to be handed over to the pastors of the town, to be used by them for charitable and religious objects, in fulfilment of the terms of the deed. The niece of the deceased notary, who inherited the remainder, wished that the property should be disposed of according to this document, but the *Conseil d'Etat* refused to recognise the legality of the document, as it could not be considered seriously, being evidently the result of derangement of mind. M. Chatelain controverts the view, and we think justly, as no other facts were brought forward to support the opinion; and the arrangements implied were the rational action of a devotional mind, the only undoubted eccentricity being the form in

which the ideas were put. It was much to the credit of the niece that she insisted on handing over as a gift to the pastors what she could not let them take as a debt.

The Asylum for the Insane in the Island of Cuba.—Dr. Munoz, to whose paper on General Paralysis we have already referred, contributes a history of the Cuban Asylum. The first asylum which was erected in the island, was founded in 1828, and was intended for eighty male patients; it has had over a hundred resident at one time. In the following year arrangements were made for the reception of females in the poor-house at Havanna. The administration of these places was as bad as could well be conceived until 1855, when a project was started for providing a new asylum. Since this new building has been employed things have improved to a certain extent, but it was far from being what it ought to have been. The building was constructed with no other aim than to keep the inmates safe, and discipline was maintained with the whip and hand-cuffs, and no medical authority had anything to do with them except on account of bodily ailments. In 1863 Dr. Munoz was appointed physician, but the steward is allowed to have equal and independent power, which prevents him from carrying out many reforms of any importance. Still, certain improvements have been made, and Dr. Munoz hopes gradually to make further approach to a humane and rational system. A plan for a new organisation and a new asylum was, when this article was written, before the executive authorities, but it had not then received the sanction of the Governor.

The Connection between Pellagra and Insanity.—We can only give the general conclusions to which M. Brierre de Boismont comes after his exhaustive discussion of this subject. That insanity is a frequent complication of pellagra is undoubted; the fifth of the patients in the Italian asylums of the Senovra and the third of those at San Servolo being afflicted with pellagra. It appears from a paper of Professor Gianelli that the annual number of those requiring to be admitted to the asylums of Lombardy is not below seven hundred. The insanity which is associated with pellagra is no peculiar species. Its ordinary form is depressed monomania (lypemia of Esquirol); it is not, however, so frequent as to prevent mania and dementia from being often associated with pellagra. The stupidity observed in many cases appears to present well marked differences from the stupid melancholia described by Baillarger. Ordinarily the insanity does not appear until after the pellagra; this, however, is not constant. The suicidal tendency mentioned by authors is undoubtedly associated with pellagrous insanity, but not so frequently as was formerly believed. Besides, the tendency is most often associated with the form of insanity which we have seen to be most frequent. The comparative examination of the symptoms of pellagrous paralysis and general

paralysis of the insane does not favour the idea of the identity of these two diseases.

Medico-legal Report on the Case of Joseph Valentin.—In this case M. Teilleux considers that the accused, in committing the acts of which he is accused, and even in his ordinary life, has for a long time been under the sway of fixed ideas, of a blind automatic force which urged him forward, and in regard to which he is only the agent; and the acts which he commits cannot be imputed to him as reasonable. He feels, he is affected by emotion, he passes directly from emotion to action; his conscience does not weigh the matter which he is about to carry into action, and which is forced on him by his hallucinations. He neither calculates the consequences nor discusses the morality of his actions. On these grounds he cannot be held as responsible for his actions; but it is necessary for the safety of the public that he should be confined as a dangerous person.

Anatomical lesions in General Paralysis.—This paper is a translation of the article by Dr. Franz Meschede, which has already been translated for this Journal by Dr. Blandford (vide "Journal of Mental Science," No. LIX, Oct. 1866, p. 348, et seq.).

Medico-legal Report on a case of Simulated Insanity.—This report, by Drs. Henry Bonnet and Jules Buard, refers to the case of a man (Joseph Maine), a lute maker, 25 years of age. He had for some time been engaged to marry a girl, who had twice been pregnant by him; but being fond of drink and gambling he had from time to time deferred the fulfilment of this engagement. At last the marriage appeared to be inevitable, and arrangements were made for its taking place on a certain day. A short time before the appointed time, however, he applied to his *fiancée* for some money; and on her proposing to consult his father as to whether she ought to comply with his demand he struck her in the chest with a knife, causing a wound which penetrated to the lung. After the deed he stabbed himself several times, but without injuring himself seriously. Insanity was alleged in his defence; and his conduct after the crime—obstinate taciturnity, refusal of food, and restless demeanour—gave colour to the allegation. The conclusions arrived at by the medical experts were however that he was in full possession of his senses, and was quite responsible for his actions at the time of the assault. He was condemned to five years' imprisonment. The girl ultimately recovered.

Journal de Médecine Mentale for 1866. This serial consists more of bibliographical notices and records of occurrences, possessed of more or less interest to alienists, than of original contributions. The principal articles of the latter class consist of a series of papers by the editor, M. Delasiauve, on the different forms of insanity. In the

volume for this year he proceeds with the consideration of "partial instinctive insanity," and concludes that section of the subject with three chapters on "Incendiary Monomania, Monomania of Theft, and Erotism." He also discusses, in the succeeding articles, "Partial Dementia, and Idiocy." The latter he divides into "simple imbecility, incomplete imbecility, mobile imbecility, imbecility proper, and complicated idiocy." The papers are characterised especially by the supply of illustrative cases. At the end of most of the chapters are given lists, or rather a series of condensed abstracts, of all recorded cases which illustrate the subject immediately under discussion. M. Delasiauve also contributes two letters, addressed to the editor of the "*Avenir National*." The non-medical press in France has now, for a considerable time, been the medium of attacks on the asylum system, which is accused of causing the imprisonment of many persons who might, with propriety, be set at liberty, and of sitting as a huge and unnecessary incubus on the tax-payer. Among other accusations, the superintendents of asylums are said to encourage the filling of the institutions under their care; and alienists generally are accused of taking a one-sided view of the cases which come before them, showing itself in a tendency to prove every one mad. In the two letters to the "*Avenir National*," M. Delasiauve shows forcibly that if those who have given their lives to the study of insanity fail to form correct judgments regarding it, the condition would not be improved were its management confided to those who are absolutely ignorant of it.

M. Semelaigne contributes three articles, which conclude the series on "pathological suicide." They are, like those of M. Delasiauve, distinguished by the long series of illustrative cases. He also contributes some chapters of an interesting essay on the "History of Insanity among the Ancients," referring specially in these chapters to the works of Caelius Aurelianus.

M. Berthier, in an article on the "Secretions of the Skin in Insanity," arrives at the following conclusions:—"Both at Bourg or at the Bicêtre," he says, "I have often ascertained the condition of the skin of the insane, choosing the morning for the observation, so as to avoid the disturbing influence of occupation during the day. The results of this investigation, which were invariably identical, may be summed up thus, according to the nature of the *vesaniæ*. In insanity, not chronic, and of the exalted, expansive form, decrease more or less marked, of the heat in the extremities; elevation to a corresponding degree at the head and in the axillæ; hands dry on the dorsal aspect; humid and sometimes wet, frequently viscid on the palmar aspect. In insanity, not chronic, and of the depressed form, temperature low, even very cold, at the inferior extremities; elevated at the head and under the axillæ; hands on the dorsal surface very dry, or the palmar surface dry or glowing. In the chronic condition, the transformation of the skin, which becomes thin,

assumes a parched character, and sometimes is effected by *erythema pellagrosa*, gradually restores the symptoms to a kind of uniformity. There is less heat at the head and under the axillæ, with less coldness of the extremities; the skin being generally arid, dry, pulverulent, and wrinkled." "The play of the nervous currents," he continues, "explains these variations. In mental derangement the passions are reflected in a more or less *bizarre*, disordered, and excessive manner. But, as is justly observed by Ch. L. Dumas, the celebrated professor of physiology, at Montpellier, some passions, such as anger, for instance, direct movement from within to the exterior; while others, such as fear, drive it back from the exterior to the interior, and thus by deranging the circulation vitiate the fluids, the blood, bile, saliva, perspiration, &c. H. Davy has also proved, by numerous experiments, that, under the influence of intense moral excitement, the temperature of the body may fall as low as 27 degrees (81° Fahr.). It is evident that both phenomena, eccentric and concentric, will produce the same consequences among the insane."

PART IV.—PSYCHOLOGICAL NEWS.

THE REV. MR. SPEKE.—The opinions of the medical attendants upon the Rev. Mr. Speke, published in *The Times* at the request of his family, amply bear out the views expressed by *The Lancet*. There can be no doubt that Mr. Speke had long suffered under morbid impressions, which attained their climax on the occasion of the marriage of his friend—"the marriage he could not bear to see." It is impossible to come to any other conclusion from the account of his case, drawn up by his physicians, we believe, Dr. Gull and Dr. Tuke, than that Mr. Speke has suffered under that most common form of nervous irritability which, under proper treatment, is quickly remediable; but which, if neglected, or, as it would seem to have been in this case, treated by advertising quacks, may lead to melancholy, to temporary insanity, or even to suicide. We are glad to find that Mr. Speke has a fair prospect of restoration to health; but it is sad to think that his case is only one of many. How much misery might be avoided, how much mental anguish escaped, if sufferers like Mr. Speke would but place themselves at once in the hands of their usual medical advisers.—*Lancet*, March 7.

PSYCHOLOGICAL CLINIQUE AT CAMBRIDGE.—The medical school of the Cambridge University is to be congratulated on a recent addition to its attractions—namely, the establishment of a *clinique* for the study of mental diseases. Dr. Mackenzie Bacon, the superintendent of the County Asylum at Fulbourn, lately offered to receive a class at the asylum, once a week, for the purposes of clinical study, and to give a more or less systematic course of instruction in the subject of insanity—an offer of which a good many have availed themselves. These

meetings, of course, correspond with the academical terms. The proximity of the asylum to the University enables the men to take advantage of this opportunity; and in this way they are more fortunate than the London schools, which can find lecturers but not patients for illustration and observation.—*Lancet*, March 7.

THE METROPOLITAN POOR ACT.—We have already proofs enough before us of action being taken under the Metropolitan Poor Act; and it must be admitted that the great changes in Metropolitan Poor-law administration, are many of them, of a kind which require time for their full development. Large establishments are not to be built, nor great schemes brought into play in a day. We may, however, refer to a few facts to show that Metropolitan Poor-law administrators have not been idle during the past year; and that the progress shadowed forth in Mr. Hardy's Bill is now becoming an actual fact. The Metropolitan District Board formed under that Act have already claimed sites for two imbecile asylums, each of which is to contain accommodation for 1500 inmates; and we may conclude (as architects have already been selected to compete for the designs) that before the summer is over these grand buildings will be rising out of their foundations. The sites are in the neighbourhood of Watford and of Caterham. Large plots of land have been purchased on each site, in order that the sewage of the asylums may be disposed of by irrigation, &c., on the land itself. More difficulty has naturally been found in obtaining sites for the Fever and Small-pox Hospitals. For them it is necessary that land should be obtained in the vicinity of London. Fever and small-pox patients cannot be transported, like the imbecile, far away into the country. The energetic committees of the Metropolitan Board, with Dr. Sibson and Mr. Holmes as their respective chairmen, to whom the obtaining of proper sites for the Small-pox and Fever Hospitals is intrusted, will doubtless ere long accomplish their duty; indeed, one site on which, we understand, both a small-pox and a fever hospital will be erected has already been obtained for the northern district of London. As our readers are already aware, sites are also to be provided for similar hospitals in the east end of London and south of the Thames. Thus, under Mr. Hardy's Bill—ere it is yet twelve months old—provision of the most perfect kind is being actually made for the fever and small-pox cases occurring amongst the poorer classes of the metropolis; and for 3000 of its imbeciles. In addition to these, the groundwork has been laid for the effectual separation of the sick poor from the ordinary inmates of the workhouses. We fear it would frighten the timid ratepayer were we to offer an estimate of what we believe to be the outlay which must be made by the metropolis in order that guardians may set their houses in order. And the work is all in hand, either *in esse* or *in posse*. In several cases it is already begun. Nor has that part of the Bill which provides dispensaries for the sick poor been forgotten. Some dispensaries are already in existence; and arrangements are, we understand, being made for their establishment in all those districts where they are required. That these great alterations must eventually result to the benefit of medical officers of workhouses we cannot doubt. We believe that it has already done so in several instances; where, for example, guardians now provide the drugs without diminishing the salaries of the officers who had agreed to provide them. We may safely anticipate that the medical men selected to manage the imbecile asylums and fever and small-pox hospitals will be men of standing in the profession, and that their salaries will be equivalent to their standing. This, again, will tend to elevate generally the status of Poor-law medical officers. We might, also, in this catalogue of facts, set down the changes which have taken place in the management of existing metropolitan workhouses; the earnest attempt made by some of the boards to meet the existing pressure of poverty by hiring and fitting up temporarily large buildings for the accommodation of their poor; and their liberal treatment of the sick. The past year has undoubtedly been in great part a year of deliberation, how best to carry into action the provision of Mr. Hardy's Bill. Those on whom devolved the duty of resolving all the many difficulties of the various cases may be well

excused if they hastened gently to their conclusion. This is a matter in which there is no stepping back. But action must now soon follow counsel on a still larger scale; and we may venture to guess that before another year is past there will scarcely be an union or parish in the metropolis which will not have recourse to the good offices of the medical inspector, the architect, and the brick-layer.—*British Medical Journal*, February 1.

PROPOSED NEW ASYLUM FOR IDIOTS.—At the late quarter sessions for the county of Warwick it was determined to erect an Asylum for that county to accommodate not more than 200 idiots. This is the first county in England in which special provision is determined to be made under the Lunacy Acts for pauper idiots as distinguished from lunatics; but it is decided by the magistracy that the new Asylum shall be under the government of the same committee as the County Lunatic Asylum, and that it shall be erected, if possible, on land contiguous to that of the Lunatic Asylum, so as to be also under the general supervision of Dr. Parsey, the Medical Superintendent of that Asylum. The county of Warwick has already the honourable position, with regard to its insane poor, of providing in its County Asylum for a larger proportion of them than any, except two, other English counties (80 per cent. of those subject to the inspection of the Lunacy Commissioners); but among the inmates are about 60 idiots, some of them under ten years of age. There are also about 100 in the different Workhouses; and, in addition to these, it has been ascertained, by careful inquiry instituted throughout the county, that the proportion of idiots and imbeciles of the poorer class living with their friends, and very few of them under any supervision, average one to about every 1000 of the population. The population of the county of Warwick, exclusive of Birmingham, which makes independent provision for its insane poor, is in round numbers 260,000; its present Lunatic Asylum will accommodate 460 patients, or one in 565 of this population; and it is supposed that the additional two hundred beds given by the Idiot Asylum will enable all the wants of these two unfortunate classes to be amply provided for, as it is not to be expected that nearly all the idiotic and imbecile poor will require the special care of an Asylum. It is very satisfactory to find that the magistrates adopted the enlightened course of separating the idiots from the lunatics, thus giving facilities for their independent special treatment, instead of converting the present County Asylum into an unwieldy size by unsatisfactory enlargements.—*Medical Times and Gazette*, January 18.

THE MEDICAL STAFF IN THE IRISH DISTRICT ASYLUMS.—The attention of Government ought certainly to be directed to a complaint which is very reasonably made by our Irish correspondent in his letter published in *The Lancet* of last week. It appears that the Irish public lunatic asylums are very ill provided with resident medical officers. Whatever may be the number of inmates—and this, it appears, varies from 740 in the Richmond down to 130 in the Carlow Asylum—and whatever may be the number of visiting physicians appointed to attend upon them, by some unaccountably perverse rule, no more than one resident physician is ever allowed to each establishment. There is no need to discuss the propriety of this arrangement; the common sense of the profession, and one would suppose of the public equally, must condemn such a state of things. It is plain that upon the resident medical officer, far more than on the visiting physician, must fall the responsibility of treatment in difficult cases, and that on his skill and hourly watchfulness must mainly depend the chances of cure in critical, and especially in acute, cases. To overburden the resident physician with work and responsibility is, therefore, to do the maximum of injury to the patients. And, certainly, to suppose that any one medical resident can effectively supervise 750—or for that matter 350—insane persons, would be to go a long way towards proving one's own lunacy. Undoubtedly, in all but the very smallest asylums at any rate, there should invariably be an assistant, as well as a principal resident medical officer. To say the least of it, there must be times when an active asylum physician must need relaxation, or must needs be absent on private

business, and it is absolutely indispensable to the good management of a large medical establishment that some one should be on the spot to assume his duties, who is already familiar to some extent with the cases of the patients, and is also accustomed to the routine of the asylum, and able to make the wheels of discipline work smoothly. For this purpose an assistant, trained under the eye of the principal resident physician, is exactly what is wanted. But besides this there is another and most practical point suggested by our correspondent—namely, that if we are to keep up the supply of men who shall be properly qualified to take the supreme charge of any of these public asylums—even of one with only 150 beds—we must have such posts as that of Assistant-resident, in which men may be gradually trained into fitness for the responsible office of managing the whole medical discipline of such places. It is of supreme importance, as regards the scientific education of young alienist physicians, that they should not commence active practice by being pitchforked suddenly into a place of irresponsible power (medically speaking), where the fullest liberty would be allowed them for airing those *à priori* notions to which all young men are liable, but which specially beset young men who have to deal for the first time with a very difficult and mysterious subject. And we may add one more consideration—namely, that if the day is ever to come when the obvious and common sense step of utilising public asylums as schools for the study of lunacy shall be adopted, it will be found utterly impossible to employ the resources of these establishments for clinical teaching so long as they are insufficiently supplied with resident officers. Nothing but a sufficient supply of resident medical officers, to ensure that individual patients are *closely watched*, as well as cleverly treated, can make the histories of their cases sufficiently accurate to be really valuable in teaching men who have yet the alphabet of alienist medicine to learn.—*The Lancet*, January 11.

Appointments.

P. M. COOKE, L.A.H. Dub., has been appointed Apothecary to the New County Wexford Lunatic Asylum at Enniscorthy.

T. E. CRALLAN, M.A., has been appointed Chaplain to the Sussex Lunatic Asylum.

T. G. CRANFIELD, M.D., has been appointed Visiting Physician to the new County Wexford Lunatic Asylum at Enniscorthy.

P. M. CULLINAN, M.B., F.R.C.S.I., has been appointed Consulting and Visiting Physician to the District Lunatic Asylum for the County of Clare.

G. S. ELLIOT, L.R.C.P. Ed., has been appointed Assistant Medical Officer to the County and City of Worcester Lunatic Asylum at Powick, vice G. J. Hearder, M.D., appointed Medical Superintendent of the Carmarthenshire, Pembrokeshire, and Cardiganshire joint Lunatic Asylum at Carmarthen.

J. H. HATCHELL, L.K.Q.C.P.L. has been appointed Resident Medical Superintendent of the Maryborough District Lunatic Asylum. vice T. W. Shiell, M.B., appointed to the District Lunatic Asylum at Enniscorthy.

J. TREGELLES HINGSTON, Esq., has been appointed Medical Superintendent of the Isle of Man Lunatic Asylum.

HENRY HAWKINS, M.A., late Chaplain of the Sussex Lunatic Asylum, has been appointed to the Middlesex Lunatic Asylum at Colney Hatch.

G. MICKLEY, M.A., M.B., Cantab., has been appointed Assistant Medical Officer to the Three Counties Asylum, Arlesey, Beds.

R. H. HEURTLEY SANKEY, M.R.C.S., has been appointed Superintendent and Medical Officer of the County Asylum, Littlemore, near Oxford, on the resignation of Mr. William Ley.

DR. SIBBALD, Medical Superintendent of the District Asylum for Argyleshire, and Dr. MACKINTOSH, Medical Superintendent of the District Asylum for Perthshire, have been elected "*Membres Associés étrangers*" of the *Société Médico-Psychologique*.

J. WALLIS, L.R.C.P.Ed., has been appointed Assistant Medical Officer to the Durham County Asylum, Sedgefield.

H. M. L. WALTERS, M.A., has been appointed Chaplain to the Oxford Lunatic Asylum at Littlemore.

R. R. B. WICKHAM, L.R.C.P.Ed., has been appointed Assistant Medical Officer to the Royal Asylum for the Insane, Morningside, Edinburgh.

PRESENTATION.—A handsome mediæval metal gilt inkstand, with candlesticks to match, with the arms of the Asylum on an enamelled shield, have been presented to Henry Hawkins, M.A., late Chaplain of the Sussex Lunatic Asylum, Haywards Heath, as a parting gift from the Chairman and several members of the committee of visitors, the officers, attendants, artisans, and servants, who united in a joint subscription for this purpose.

Correspondence.

TO THE EDITORS OF THE JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,

I take the liberty to call your attention to the subjoined correspondence between the Commissioners of Lunacy and myself, and to ask you to allow the same to appear in the columns of your journal; so that the widest publicity may be given, and on public grounds, to the facts stated.

It is well to remember that *clause* 26, alluded to in my letter, makes it incumbent on the proprietors of licensed houses for the insane to give "*notice of dismissal for misconduct of attendants*" to the Commissioners of Lunacy.

I have the honour to be, Sir,

Your obedient servant,

JAMES G. DAVEY, M.D.

Northwood, near Bristol, Feby. 12, 1868.

Northwood, Bristol, Jany. 3, 1868.

SIR,

Reverting to a former letter of mine of October last, a letter suggested by clause 26—16 and 17 Vict., cap. 96—and which informs you of the charge of larceny made by me against *Henry Salvidge*, lately an attendant here in my service, I have now to report that on or after the trial (which took place at Gloucester, January 1st, 1868) of the said *Henry Salvidge*, he was acquitted of the crime named.

In connection with this case I think it right to call the attention of the Commissioners of Lunacy to the fact that the several articles of apparel, &c., including trousers, handkerchiefs, collars, &c., &c., and one umbrella, the properties of several patients in this asylum, though found at Foulton, and in his, *Henry Salvidge's*, possession, and now returned to my care, were held to have been given to him (H. S.) by the gentlemen here alluded to; and so it was that he has escaped with all impunity.

I have the authority of my solicitor to state that had a formal notice, duly posted about my establishment, been in existence, to the effect that no attendant was authorised to receive presents of any kind from patients, he (*Henry Salvidge*) would then have been found guilty of the theft, and punished accordingly.

I should add that there is a stringent and well-known rule (though not posted in this asylum) that no servant shall on any account whatever receive presents from patients (ladies or gentlemen), and to this "rule" all prominence was given by myself and the other witnesses (matron and attendant) against the person before named.

The above statement you may be inclined to consider not a little noteworthy and of much interest to medical men who are proprietors of asylums. If this be the case may I venture to ask, through you, for the permission of the Commissioners of Lunacy to publish, with as little delay as possible, the foregoing facts in a medical journal?

I have the honour to be, Sir,

Your obedient servant,

JAMES G. DAVEY, M.D.

P.S.—Since writing the preceding letter, a report of the case has appeared in a Gloucester paper. The words occur: "*The defence was that the articles had been given to the accused by the patients themselves and,*" it is added, "*as the witnesses could identify none of them as belonging to the patients, the jury returned a verdict of not guilty.*" The truth, however, is that each one and all of the "*articles*" were *bonâ fide* and in fact identified, and distinctly sworn to by the "*witnesses.*"

J. G. D.

Office of Commissioners in Lunacy,

19, Whitehall Place, S.W.,

9th January, 1868.

SIR,

I am directed by the Commissioners to reply to your letter of the 3rd instant, and to state that they have no objection to your publication of the facts to which you therein refer. You are quite at liberty to act in the matter as you think fit.

I am, Sir,

Your obedient servant,

THOMAS MARTIN.

For the Secretary.

DR. DAVEY.

The following letter appeared in the *British Medical Journal* of the 8th February:—

SIR,

"In No. 365 of the '*British Medical Journal*' (p. 600), I find a letter, in which Dr. Claye Shaw, Assistant Medical Officer of the Colney Hatch Lunatic Asylum, overwhelms me with abuse. I should not heed such a merely personal attack, which I have by no means provoked, if I could be sure that all your readers were acquainted with the point in question; but as this is probably not the case, I trust you will allow me a short reply.

"Dr. Sheppard, the senior officer of the Asylum, has recommended a new method of treatment for destructive maniacal patients—a method which has been much discussed, as well in England as in Germany. In common with many others I am of opinion that this method is prejudicial and inexpedient; and have stated in my paper that the recommendation of this method by a physician to the insane ('*Irrenarzt*') could only be understood by the consideration of the fact that this physician, as is actually the case in Colney Hatch, is overburdened by the excessive number of patients under his care. I have further pointed out, that the numerous opponents, also existing in Germany, to the '*non-restraint system*,' would take advantage of the recommendation of Dr. Sheppard's plan, in order to spread distrust in the English system of treatment. My own intention was to prevent this with regard to Germany, by showing that Dr. Sheppard's method was not a necessary consequence of non-restraint, but of the enormous '*agglomeration*' of patients; that, therefore, the fault was to be looked for in the Colney Hatch Asylum itself. I do not think that I have thus

committed any wrong, or that I have been guilty of indiscretion; and I scarcely need assure you, that I should not have mentioned Dr. Sheppard's name if the subject which he defends had not been already well known and discussed. It is not I who have rendered his name inseparable from the subject. Why, then, does Dr. Claye Shaw heap injuries upon me? Because I have stated that I have seen the system vaunted by his senior officer (to shut up destructive patients naked) carried out on a patient in the Colney Hatch Asylum! I confess that I cannot understand this; for the indignation which Dr. Shaw exhibits at this statement of mine, is plainly a reproach to his senior officer who recommends this method. Even if, therefore, the facts which I have stated were incorrect, I should not see cause for the manner in which he abuses me.* I maintain, however, the facts which I have stated to their full extent; and am further quite certain that I have expressed to Dr. Shaw my disagreement with his plan of treatment. I must therefore assume that Dr. Shaw, owing to my imperfect manner of expressing myself in a foreign tongue, has not quite understood me. With regard, however, to the farther peculiar statement of my honourable *confrère*, that I had been 'anxious to enforce some ideas of mine on lesions of the spinal cord in general paralysis,' I beg leave to remind him of his spontaneous request to send him my articles, in order that he might translate them into English; which, unluckily, I have forgotten to do. If this was not likewise a mere act of courtesy—as from certain words in his letter I must now believe it was—it shows that Dr. Shaw took then, at all events, some interest in the subject.

"I deeply regret, sir, to be forced thus to repel an attack which, in such a form, ought not to occur amongst men of science; but I was all the more compelled to this short reply, as the attack came from England, where, during the whole of my stay, I was always received in the most hospitable manner.

"I am, &c.,

"DR. C. WESTPHAL."

"Berlin, January, 1868."

British Medical Journal, February 8th.

* If, for instance, Dr. Shaw had visited some of our German Asylums in which the strait-waistcoat is still used, and had related in an English journal that he had found several patients in the strait-waistcoat in one or other asylum, would any of those German physicians who approve of the system of mechanical restraint consider himself offended? Most certainly not.

THE JOURNAL OF MENTAL SCIENCE, JULY, 1868.

[Published by authority of the Medico-Psychological Association.]

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The Journal of Mental Science.

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The following *EXCHANGE JOURNALS* have been regularly received since our last publication:—

Annales Médico-Psychologiques; Zeitschrift für Psychiatrie; Vierteljahrsschrift für Psychiatrie in ihren Beziehungen zur Morphologie und Pathologie des Central-Nervensystems, der physiologischen Psychologie, Statistik und gerichtlichen Medicin, herausgegeben von Professor Dr. Max Leidesdorf und Docent Dr. Theodor Meynert; Archiv für Psychiatrie und Nervenkrankheiten, in Verbindung mit Dr. L. Meyer und Dr. C. Westphal, herausgegeben von Dr. W. Griesinger; Correspondenz Blatt der deutschen Gesellschaft für Psychiatrie; Irren Freund; Zeitschrift für gerichtliche Medicin, öffentliche Gesundheitspflege und Medicinal-gesetzgebung, Wochenschrift für Aerzte, Wundärzte, Apotheker und Beamte; Journal de Médecine Mentale; Archivio Italiano per le Malattie Nervose e per le Alienazioni Mentali; Medizinische Jahrbücher (Zeitschrift der K. K. Gesellschaft der Aerzte in Wien); the Edinburgh Medical Journal; the American Journal of Insanity; the Quarterly Journal of Psychological Medicine, and Medical Jurisprudence, edited by William A. Hammond, M.D. (New York); the British and Foreign Medico-Chirurgical Review; the Journal of Anatomy and Physiology, conducted by G. M. Humphrey, M.D., F.R.S., and Wm. Turner, M.B., F.R.S.E.; the Dublin Quarterly Journal; the Medical Mirror; the British Medical Journal; the Medical Circular; and the Journal of the Society of Arts. Also the Morningside Mirror; the York Star; Excelsior, or the Murray Royal Institution Literary Gazette.

Great facilities are now given for the transmission of periodicals between England and the United States of America, by *Book-post*. We trust our American Correspondents will avail themselves of them.



THE JOURNAL OF MENTAL SCIENCE.

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NEW SERIES,
No. 30.

JULY, 1868.

VOL. XIV.

PART I.—ORIGINAL ARTICLES.

Illustrations of a Variety of Insanity. By HENRY MAUDSLEY,
M.D., Lond.

(Read before the Harveian Society of London, March 5th, 1868).

In the observations which I am about to address to you, I purpose to set forth by illustrations the character and course of a form of mental derangement which has its special cause, certain characteristic features, and a definite course, almost invariably from bad to worse. I speak of that kind of insanity which is brought on by self-abuse. In doing this, however, I have another object in view; I am anxious to use my exposition in order to exemplify a new and practical classification of insanity which has been proposed and sketched out by Dr. Skae.

The classification of mental disease hitherto adopted, and still everywhere employed, is, with the exception of one division—that of general paralysis—purely psychological; it is based upon mental symptoms, and upon nothing more than symptoms; and it is certainly vague, artificial, and unsatisfactory. Thus, when a person is excited, and raves more or less incoherently, we say that he is suffering from *acute mania*; when he is gloomy, wretched, and fancies himself ruined or damned, we say that he has *melancholia*; when he exhibits insane delusions upon one subject, or in regard to certain trains of thought, and talks sensibly on other matters, he is said to have *monomania*; and when his memory is

impaired, his feeling quenched, his intelligence much enfeebled or abolished, then he is described as suffering from *dementia*. Accordingly we find in the ordinary text books more or less vivid pictures of these different so-called diseases; we get from them a tolerably distinct general idea of what a maniac, or a melancholic, or a monomaniac is like. But when we meet with a particular case of insanity in practice, and refer to our text books for information, we really do not get much help from them; our case may apparently fall into the category of mania, or into that of melancholia, or not improbably it may be something between the two; but the classification is so vague and artificial, and the descriptions are so general, that we get very obscure answers, or no answers at all, to the pressing questions—what has been the probable cause of the mental derangement in the particular case with which we are concerned? with what bodily symptoms, if any, is it associated? what will be its natural course? what its probable termination? and what are the particular means of treatment best suited for adoption?

These are the points on which we urgently want information; and we are certainly not made much wiser by being vaguely informed that insanity may be caused by this or that or fifty other things—that mania or melancholia may last for a few days only, or for months or years—that either of them may end in recovery or in dementia—and that opium is very serviceable in some cases of mania, very mischievous in others. “Good heavens!” we are driven to exclaim; “this is all very well; but of what use is it to me in my necessity?” Truly none, or next to none. It is contrary to the true principles of reasoning to look for the meaning of the concrete in the general or abstract; the meaning of the general or abstract must always be sought in the concrete.

How, then, are we so to arrange mental diseases in natural groups, that when we have to do with a particular case in practice, we may, from a knowledge of the characters of the group, come to a conclusion as to the cause, course, termination, and treatment of our case? It is not an easy matter, nor a matter yet entirely practicable; but there are indications of the future possibility of it. By observing carefully in all cases the special features, bodily as well as mental, of the disease, by tracing out the bodily disorder which, in a great many cases, will be found to have caused or to be associated with the mental symptoms, and by watching the course of

each case of disease presenting different features, we may hope to get at its true natural history; and the complete medical history thus obtained will show us that some of the manifold varieties of insanity may be arranged in certain natural groups formed of cases having real relations and presenting characteristic features. For example, when we find that a patient has a certain hesitating speech, and exhibits signs of mental confusion or feebleness, together with a marked loss of memory, that he is in a happy or elated mood of mind, and that he entertains great projects or actual delusions of grandeur, we know right well that he is struck with incipient *general paralysis*, that his malady will go through a defined course from bad to worse, and that it will probably end fatally before three years have expired. In the same manner, certain forms of insanity having tolerably characteristic features, which I shall not describe now, occur in connection with *epilepsy*. Again, *puerperal insanity*, having its special cause, presents also special characters which justify the formation of a group of cases under this designation. All cases of insanity which occur at the change of life are supposed to exhibit their particular characters, and to form a group to be described as *climacteric insanity*. The bodily and mental features of *hysterical insanity* are sufficiently marked to enable us to make a group of cases of that nature. But I shall not go on now to enumerate all the groups and families that have been proposed, some of which certainly present distinct characters, while others seem to be artificial. You will easily perceive how very valuable for practical purposes such a classification would be; if we could thus arrange the manifold varieties of insanity in natural orders or families, so that from a knowledge of the characters of the order to which it belongs we might predicate confidently certain things of the particular case, then we should have made vast progress in our knowledge of insanity; we should see our way indeed to what is so much needed—a truly scientific and practical arrangement of its manifold, and at present perplexing, varieties.

After these preliminary remarks for the purpose of indicating the character of the revolution which seems impending, I go on to illustrate the features of the mental derangement which is produced in men by self-abuse, and thus to sketch the features of a well marked group.

You are aware that no change which takes place in a person's mental character—in his tastes, feelings, aims, and

conduct, is so marked as that which takes place at the time of puberty, when the sexual nature is developed. There is then a complete revolution in the mental being; the old nature passes away, and there is a new birth of feelings, desires, and thoughts. Now this great change happening coincidently with the development of the sexual organs, is the most striking illustration which we have of the intimate and essential sympathy which exists between the different parts of the organism: it proves, if proof on such point were necessary, how the mental life, as the final achievement of organisation, really comprehends the whole bodily life. The metaphysician may separate the mind from the body by an absolute barrier, and then proceed to evoke the laws of its action out of the depths of his consciousness; but the physician who has to deal practically with the thoughts, feelings, and habits of men, who has to do with mind, not as an abstract and ideal entity on which to speculate, but as a force in nature which he must study and influence, recognises how entirely the integrity of the mental functions depends on the integrity of the bodily organisation.

The striking example of physiological sympathy afforded by this great mental revolution at puberty, illustrates a mode of action which enters largely into the production of disease; it may, indeed, help us to the conception of the extensive bearing of pathological sympathy on the evolution not of mental disease alone, but of all kinds of disease. On this occasion, however, I desire only to bring forward the conception, in order to throw light upon the peculiar features of the mental derangement caused by a vicious abuse of the sexual function. One word more for the purpose of putting in a more distinct light the deep disturbance which is occasioned in the mind at the time when the revolution is in course of accomplishment. A revolution of any kind cannot of course take place without some amount of disturbance; old combinations must be broken up and new ones formed, and there will be more or less agitation in the process. But the tumult in the mind at the time when the sexual system is establishing itself claims the special attention of psychologists. The strange and vague feelings, the aimless longings, the obscure impulses, and the novel images which then arise in the mind, keep it in commotion for a while; and the equilibrium is not restored until the invasion of the old circle of thought by the new elements is completed, and the individual has attained to a conscious-

ness of his new character, and has brought himself into harmony with new external relations. The period during which this fermentation of thoughts, feelings, and desires is going on is at the best a very trying period for a youth; and if there be in him any natural instability of nerve element, owing to the curse of a bad descent, or to some other cause, it is easy to perceive that the natural disturbance of the mental equilibrium may pass into actual destruction of it; that a physiological process in a feeble mental organisation may end in pathological results. Undoubtedly this does happen in some cases; an outbreak of acute mania, *a mania of pubescence*, as Dr. Skae calls it, occurring sometimes at this critical change. More than this, however: it is not unfrequently at this period that the foundations of future mental disease are laid in the mental character. Through want of due control and proper training at a time when so great and active a change is going on, vicious habits of thought and feeling are sometimes indulged and get fixed in the mind, so as to become, ultimately, hardly less damaging to its health than the bad practices which are then sometimes commenced, and which lead to physical deterioration of the nerve-centres. Insanity may have its real origin at this critical period, though it may not actually break out for years afterwards. It will be observed, however, in a great many cases of mental derangement connected with self-abuse that some degree of hereditary taint has co-existed.

Now the insanity which begins at this period, and has its origin in the cause indicated, presents certain characteristic features, which enable us for the most part to distinguish it from insanity otherwise caused. It is a very disagreeable form of mental disease, and it is not often that those who have to do with it fail to recognise it. The miserable sinner whose mind suffers by reason of self-abuse becomes offensively egotistic; he gets more and more closely wrapped up in his own narrow and morbid feelings, and less and less sensible of the claims of others upon him and of his duties towards them; he is full of self-feeling and self-conceit; insensible to the feelings of others; his moral nature is blunted or lost. His mental energy is sapped, and though he has extravagant pretensions, and often speaks of great projects engendered of his conceit, he never enters seriously into any occupation nor works systematically at the accomplishment of any object, but spends all his time in indolent and solitary self-brooding, and is not wearied of going on day after day in the same pur-

poseless and idle life. Hypochondriacally occupied with his health, his sensations, his feelings, he imagines that his relatives are hostile to him because they do not take the interest in him which he does in himself, or make the estimate of him which he makes of himself. His own family are especially hostile to him, because they are distressed by his indolence and pretension, and try to instigate him to do something. If they speak of the impossibility of always maintaining him in complete idleness, they are unfeeling and do not understand him. His manner is shy, nervous, and suspicious, his dress often untidy or slovenly; there is a want of manliness of appearance as of manliness of feeling. The pupils are often dilated, the breath bad, the face sallow, and the body somewhat emaciated. When we are consulted about a case presenting these general features, we may hardly feel justified in signing a certificate of insanity, but we have little doubt of the nature of the mental degeneration which is beginning.

The first class of patients of this kind to which I may direct attention is that comprising youths of about 18 years of age. They are brought for medical advice by their parents or other relatives, because they are not doing any good at the business to which they have been put, and their masters complain that they can make nothing of them. They show no interest, and put no energy, in what they are set to do; they are forgetful, moody, careless, abstracted, perhaps muttering to themselves, and waste a long time in doing badly very simple things, or fail to do them. It is a thought at first that their conduct is the result of laziness, viciousness, and a desire to shirk work; but after a while it becomes apparent that there is something wrong in them, and those who have the superintendence of them are convinced that there is some failure of mind. Meanwhile, at home they are selfish, irritable, exacting, very deceitful, and passionate; they are entirely wanting in reverence for their parents, or in proper feeling for others; and their pretensions are outrageous. They themselves by no means admit that they give any just ground of complaint; but make some excuse for their conduct by putting the blame of it on persons or circumstances, or deny it altogether. One youth, who spent most of the day in leaning against a door-post, or in wandering about in a vacant and abstracted way, maintained that he had always done his work well; but that his master was jealous of him, and therefore had determined to get rid of

him. Another asserted that his relatives were hostile to him, that he was superior in talents to them, and that, therefore, they had done all they could to injure his character and reputation. Another considered the business in which he was employed beneath his dignity; and when another business was tried, he found it equally unsuitable to his merits. It is always so: always some excuse for failure and faults, which are entirely in themselves—for a course of conduct really due to a sort of moral insanity.

If you question these youths about their vicious habit, or charge them with it, you are not likely to get an acknowledgment of it; the most they will admit probably is that they have erred once or twice; but they will deny solemnly that they are continuing the habit. There is no faith to be put in their most solemn assertions, their moral nature being thoroughly vitiated. One youth, whom I was questioning upon the point, after first pretending not to hear me, and then not to understand me, confessed that he had practised self-abuse once or twice, but certainly not oftener. When further pressed upon the subject, he acknowledged that he had been suspected and accused of the continuance of the vice by his father; but this he attributed to his father's nasty ideas, and to a jealousy of him because of his mental superiority. And I may add, as an illustration of how completely all proper feelings had been destroyed by the evil habit, that he actually maintained that his father, being jealous of his superior strength, and believing that this superiority might be due to such practice, had himself been guilty of it, in order to try to equal him; but that, having failed, he had thenceforth cherished the bitterest ill-feeling against him. A striking illustration of the utter moral perversion of these patients! Good moral feeling has been acquired gradually by cultivation through generations, as the highest mental endowment of the human kind; the loss of it is one of the first symptoms of that degeneration of mankind which insanity marks, and the loss of it in its most offensive form one of the most striking symptoms of insanity caused by self-abuse.

Though you will not usually get a candid confession from these youths, observation of their habits will soon decide whether the practice is continued. They are much given to being alone; spend a long time in their bedrooms or in the watercloset; and they are often found to have bought some of the books published by the spermatorrheal quacks. They

are very hopeless beings to deal with, and it is very difficult to know what to recommend should be done with them. It is no easy matter to write a certificate of their insanity, for they betray no delusion, unless their estimate of themselves and whole manner of thought be a delusion. Moreover, if they are sent to an asylum, they invariably get worse. Their life there is idle, uninteresting, and monotonous; there is nothing to stimulate their better feelings, or to call forth their energies; they continue their evil practice without any effectual check, and they sink lower and lower in degradation. The only plan which offers a chance of success is to place them with some kind, but firm and judicious, person, who will be at the pains to exercise a close supervision, without appearing to watch too much; who will not try to bully them out of their vice—for no one yet was ever bullied out of such a vice—but who will endeavour by their influence of manly feeling and kindly advice to awaken an interest in some work, and to wean them from their ruinous vice. When they get worse, as they are very apt to do, their general suspicion of the hostility of people to them takes some special form; they come to think that persons speak of them in the streets, or that their relatives or others attempt to poison them.

Such cases are examples of the sapping of the mental health before the sexual life has really taken its place in the intellectual life—before the individual's character has had time to exhibit its influence. The natural evolution of it in consciousness is prevented by reason of the vice having been begun so early: Consequently, we have degenerate beings produced, who, as regards moral character, are very much what eunuchs are represented to be—cunning, deceitful, liars, selfish, in fact, morally insane; while their physical and intellectual vigour is further damaged by the exhausting vice.

But when the mental failure caused by self-abuse occurs at a later period of life—when the vicious habit, though it may have been commenced early, has not produced its disastrous consequences until the sexual life has entered into the circle of the ideas and feelings, then the features of the mental derangement witness to the perversion of the sexual instinct. The victim of the vice, though shy of women's society, and silent and constrained in general company, will fall in love, or think he does, with some female whom circumstances may have made him intimate with. He is then apt to be unpleasantly close and pressing in his attentions,

which have a lascivious look about them. If he has the opportunities which an engagement offers, there is no small danger of his demoralising her mind; for his thoughts run much on nasty subjects. In one case of this nature I had occasion to see the letter which a young lady, accomplished, and apparently most virtuous in thought and deed—of whom one would have dreamt nothing but purity—had written. Many of these were proper and becoming letters, but in two of them, after writing as a young lady should, she adds—“Now I will say something which will please you,” and then enters upon the most disgusting beastliness. In any case, the manner of a masturbator under these circumstances indicates to an experienced eye a lustful feeling without the power of natural restraint or of natural gratification. In fact, his behaviour betrays the actual state of things—a morbid sexual feeling, in the excitement of which he finds pleasure, and a want of restraint or manliness, which is an indication of a real sexual impotence.

He often talks in high poetical or idealistic style, speaks of absurdly exalted plans, but is entirely unpractical; he does not find sufficiently exalted feelings and high aims in the world, and cannot sympathise with, but is distressed by, its low aims and rude ways. He has great projects, but no resolves; abundant self-conceit, but no self-knowledge; a spasmodic sort of self-will, but no true will. When he is alone and has the opportunity and inclination, he practices self-abuse, and afterwards is depressed, gloomy, troubled with all kinds of anomalous sensations, and full of fancies and complaints about his health. However, his system recovers energy after a time, and then the same thing is repeated. If he has become engaged, it is when the day of marriage is fixed that his troubles begin; he is doubtful, anxious, fearful, dreading what is to come; and after rendering his betrothed miserable by his vacillations, uncertainties, doubts of compatibility, or by some overstrained religious scruples, he is almost sure to break off the engagement under some hypocritical pretext or other; if he marries, it is the lady who marries him. I have met with more than one instance in which, almost at the last moment, the gentleman, driven by the pressure of the closely impending event, has written a long excusatory letter, full of apprehensions of the serious responsibility, apprehensions having the semblance of hyperconscientious qualms or scruples. Now if any medical man were consulted in such a state of things I have a strong opinion

that he ought to oppose the marriage. Little save sorrow and mischief can come of it afterwards. Certainly marriage need not be recommended to the confirmed masturbator in the hope or expectation of curing him of his vice. He will most likely continue it afterwards, and the circumstances in which he is placed will aggravate the misery and the mischief of it. For natural intercourse he has little power or no desire, and finds no pleasure in it; the indulgence of a depraved appetite has destroyed the natural appetite. Besides, if he be not entirely impotent, what an outlook for any child begotten of such a degenerate stock! Has a being so degraded any right to curse a child with the inheritance of such a wretched descent? Far better that the vice and its consequences should die with him. In one case which came under my notice, a confession was obtained from the gentleman of the practice to which he was addicted; and the lady, after everything had been explained to her, resolved to go on with the matter, taking him for better or worse. For worse, certainly; for a few days after the event she was compelled to send to her friends for help and protection, on account of his capricious conduct and violence.

In another case the engagement was broken off, but after a time the gentleman became attached to another lady, who was inferior to him in social position; and she, being a woman of remarkable intelligence and great force of character, kept him in the course until the goal was reached. In the first week after marriage he proposed a separation, talking of incompatibility and want of sympathy. That was the excuse he found for himself for his inability satisfactorily to consummate the marriage. Before the honeymoon was over, he had dragged her out of bed by her hair in a paroxysm of capricious and irritable violence, and beaten her as severely as such a spasmodic being could. Such persons always behave brutally, and often cruelly, to their wives.

In another case a gentleman, long addicted to self-abuse, married a beautiful and amiable woman; his father, who was aware of the vice, having urged on the marriage in the hope of curing his son. For a time nothing extraordinary happened, though he was cold and indifferent to his wife, full of fancies, anxieties, and precautions about his own health, and indolent in the extreme. At the end of a year a dead child was born, after an extremely difficult labour. When his wife had recovered from the effects of her confinement, he manifested no inclination or desire to return to her

society; and one morning he entered his father's library, and calmly explained to him his firm resolve never to do so. He had no complaint to make of his wife; but he was so deeply impressed with the tremendous responsibility of bringing a child into the world, that he would not again have intercourse with her. The father reasoned and expostulated with him; and the end of the matter was that he consented as a matter of obedience to return to his wife. But they did not remain together long; he was cold and indifferent, and entirely absorbed in elaborate cares about his own health; and there could be no doubt regularly continued his vicious practices. What a position for a virtuous woman to be placed in, for the purpose of saving a degraded being, in whose life nothing could be so reasonably desired as the end of it! Note again in this case the high-pitched and hypocritical excuse for a coldness and indifference springing from an emasculation of character by a debilitating vice.

These cases are examples of evil effects which fall short of actual insanity, although they are sure to reach it ultimately. When the mischief has gone further, the symptoms of mental derangement become unmistakable; positive delusions, usually in reference to their own importance, are engendered. But their conduct is often more insane than their intellect. We observe in them an intense conceit of self in a quiet or an offensive way; large discourse concerning their peculiar feelings which other people fail to appreciate; a complete paralysis of moral feeling, so that they are dead to all their obligations and responsibilities; at the same time excited enunciation of exalted sentiments of a benevolent or religious character, which are commonly the expression of their assumed superiority in noble feelings and exalted aspirations; a disorder of intelligence not manifested in any actual incoherence, but in outrageously exaggerated notions of their own importance, and ultimately in positive delusions of grandeur with regard to themselves, or of persecutions which they undergo by reason of the envy and jealousy of others. Some of them reveal in their gait—in a turkey-like strut—the pride with which they are possessed; while others shuffle along in a slouching and slovenly manner, with eyes bent upon the ground. In the former we see, if I may so speak, the convulsion of conceit; in the latter, the paralysis of self-respect—both equally indications of the extreme degradation. When their selfish ways or personal projects are interfered with, and especially when they are challenged with their

vicious practices; they break out in most violent outbursts of anger and abuse, intermingling often with their abusive raving a great deal of religious rant. Incapable of reforming themselves, they are quite prepared to reform a wicked world. Thus, one of my patients who, apart from his insufferable conceit, was tolerably sensible in his calmer moods, would exclaim, in the midst of his passionate invective, that he was not a person to be controlled; that God had given him superior gifts of intellect, and would some day make manifest his superiority; that he would be the means of regenerating a world dead in trespasses and sins; that his family, who had confined him in an asylum because of their jealousy of him, would have to bow down to him, as Joseph's brethren did of old. Another, similarly exalted in his profession of religious sentiments and in his self-esteem, used always to address his mother as "madam" on the rare occasions when he deigned to write to her.

As an example of the high-pitched and absurd sentiments professed sometimes by these degraded beings, I may mention the case of a gentleman who had a plan for curing the social evil. He set forth with great feeling and energy the miserable and wicked thing which it was that so many of the most beautiful women should be degraded to gratify the worst lusts of men; and professed himself to be grievously distressed by the sin and evil which were caused thereby. How were so much vice and misery to be done away with? His plan, which he practised himself and proposed that others should follow, was to masturbate every morning into a tumbler of water and then to drink it. He argued that the lust was thus gratified without injury to any other person, while the man himself was strengthened by the nourishment afforded to his brain. Here, then, as in other cases, was a mind enervated by vicious practices, dwelling continually on sexual subjects, and concocting, not designedly, but with unconscious hypocrisy, an excuse for the vice which wrecked his life. It is a curious thing that to such a state of moral degradation have patients of this class come, that they will actually defend their vice on some pretence or other.

As matters get worse, hallucinations occur: the patient fancies that persons are aware of everything that passes in his mind, and reply to it, or comment upon it; or he has strange feelings, which he attributes to mesmeric, electric, or other mysterious agencies; and sometimes he is subject to a kind of trance or ecstasy, in which he lies for hours in a sort

of cataleptic state. Days of deep gloom, depression and wretchedness occur, in which he is a very pitiable object.

A later and still worse stage at which these degenerate beings arrive is one of moody and morose self-absorption, and of extreme loss of mental power. They are sullen, silent, and indisposed to converse at all; but if they do enter into conversation, they reveal delusions of a suspicious or obscene nature. They believe themselves subjected to strange influences, especially in the night, and sometimes that unnatural offences are practised upon them. Their minds seem to dwell much on such disgusting subjects; the perverted sexual passion still giving the colour to their thoughts. They are extremely suspicious, intensely and offensively conceited, and their outbreaks of abandoned passion and of furious, blasphemous, and obscene raving, are most painful to witness. They make suicidal or homicidal threats, but they are usually too fearful of pain and deficient in resolution to hurt themselves, and too cowardly to attack others deliberately. In a frenzy of passion they might do some sudden violence; but their loud threats, though full of sound and fury, do not signify much. It is needless to say that they have lost all healthy human feeling and every natural desire. The body is usually much emaciated, notwithstanding they eat well; and though they often last for a longer period than might be thought possible, they finally totter on to death through a complete prostration of the entire system, if they are not carried off by some inter-current disease.

Such, then, is the natural history of the physical and mental degeneracy produced in men by self-abuse. It is a miserable picture of human degradation, but it is not overcharged. When we meet in practice with its painful features, we know what has been the cause of the disease, and what must be its inevitable termination. I have nothing to add concerning treatment; once the habit is formed, and the mind has positively suffered from it, the victim is less able to control what is more difficult of control, and there would be almost as much hope of the Ethiopian changing his skin, or the leopard its spots, as of his abandoning the vice. I have no faith in the employment of physical means to check what has become a serious mental disease; the sooner he sinks to his degraded rest the better for himself, and the better for the world which is well rid of him.

It is a poor and sad conclusion to come to, but it is an unavoidable one. The interest of these cases does not lie in

what we can do for them by medical treatment, but in the characteristic features which they present, so that they form a natural group or family having certain definite characters. And although we may be able to do very little good when we meet with a case in practice, it is something to be able to recognise its nature, probable course, and termination, and to know how much we need not attempt to do. In fact, what we want now is a careful medical study of all the forms of insanity, of their bodily as well as mental features, and the arrangement of them, if possible, in natural orders, so that from a knowledge of the characters of the order we may obtain definite information concerning any particular case belonging to it, instead of being deluded, as is too much the case now, with empty words and the show of knowledge. For at least two thousand years, mind has been studied from a psychological point of view, and how vain and fruitless are the results! Assuredly the time has now come for studying it, as every other department of nature is studied—inductively, for entering on the investigation of its phenomena from a physiological and pathological basis. Then the results will not fail, in this, as in every other domain of nature, plenteously to reward the right method of study.

On the present State of our Knowledge regarding General Paralysis of the Insane. By Dr. C. WESTPHAL, Physician to the Lunatic Wards of the Charité, and Lecturer on Medical Psychology in the University of Berlin. Translated from the German by James Rutherford, M.D., F.R.C.P., Edin., Assistant Medical Officer, Borough Lunatic Asylum, Birmingham.

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Medical Psychologists have long been familiar with a peculiar form of disease which is characterised by a combination of disorders of the intellectual and motor faculties. The French physicians, to whom is due the honour of having first minutely described it, have given to it various names, according to the views then generally held and the special opinions of the individual observers: General incomplete paralysis (Delaye); general paralysis of the insane (Calmeil); general progressive paralysis (Requin, Sandras); paralytic insanity (Parchappe), &c. In Germany the terms general paralysis,

paralysis of the insane, and most recently paralytic dementia have been generally employed. Familiar though this disease has become to medical psychologists, and though much discussion has taken place regarding it, within a narrow sphere, still slight has been the interest hitherto taken in extending that sphere. These poor patients, whose treatment either cannot or can only with great difficulty be pursued in the ordinary relations of life, who from henceforth appear hopeless, are gladly handed over to physicians to the insane, and with the entrance of the patient into the asylum all interest in the disease ceases. The time is, I believe, at hand when in regard to this, as well as to many other matters, the veil of the asylum will be removed, when once for all the barriers will be thrown down which divide mental pathology, as we must still call it, from that of the remainder of the nervous system. Each has a series of facts to oppose to the other, and it is certainly surprising how many points of connection there are between them. The question is merely one of comprehension: mental pathology often manifests itself in a manner which outwardly is not easily understood, though it must be admitted sufficient pains have not always been taken to understand these manifestations.

In order, in this spirit and within a definite sphere, to unite the phenomena observed in the asylum with ascertained facts in nervous pathology, and to reconcile them with each other, I shall, in the following pages, give a description of the present state of our knowledge regarding general paralysis of the insane. The questions which we shall presently consider belong to the most important in the whole pathology of the nervous system.

Our knowledge of the disease in question consists of a series of clinical and pathological facts. It will be expedient in the first instance to treat of each separately. We shall commence with the clinical phenomena.

The first observers who specially directed their attention to the occurrence of certain motor disorders (of the speech and of the extremities) in the insane were disposed to view them as "complications" which might ensue on an existing mental disorder, particularly towards its close. Esquirol considered the motor disorders as analogous to scorbutus,* which is likewise a frequent complication of insanity. Later, the psychical as well as the motor disorders were viewed as manifestations of one and the same morbid process,

* Esquirol, *Malad. Ment.* II., p. 263. Paris, 1838.

and observers attempted by minute and detailed study of the peculiarities of the psychical and motor symptoms, and of their correlative relations, to define more sharply the limits of the disease. The attempts to establish a morbid entity have, though much confusion has been thereby caused, nevertheless been productive of good, inasmuch as they have led to a more minute observation and differentiation of the symptoms, whereby a certain number of general facts has been gradually obtained. We shall, in the first place, treat of the *psychical phenomena* which are observed in the so-called paralytic insane.

The question, whether the subject of the delirious conceptions in these patients presents anything characteristic, has often been made a subject of discussion. According to the theory advanced by Bayle* it was suggested that the psychical symptoms in this disease regularly pass through certain gradations, of which the first is characterised by distinct delirious conceptions, ideas of greatness, the so-called *manie des grandeurs*, upon which mania and dementia ensue as the second and third stages. The ideas constituting this *manie des grandeurs*, those of the possession of enormous riches, of incalculable power, of supreme happiness, &c., he considers specific, inasmuch as other subjects generally do not appear in the delirium.† This statement of Bayle's may be considered as completely refuted. It is now established beyond contradiction that ideas of the most varied, yea, even opposite description, frequently exist during the whole course of the disease or only for a certain period of it. It may therefore be said, that all the delirious conceptions which are observed in other (not paralytic) forms of insanity, also occur in general paralysis. The same is true regarding the emotional states, whether they present themselves alone, as such, without special delirium, or in immediate connection with delirious conceptions. Thus we recognise the known—essentially constituted according to the psychical phenomena—forms of hypochondria, melancholia, mania, monomania, and dementia in their ordinary features in paralytics. Indeed, there may even occur in the

* Bayle, *Traité des Maladies du Cerveau*. Paris, 1826. And other works by the same author.

† "The exceptions to this are very rare, and moreover are found in individuals who have not been under observation from the commencement of the disease; as the ideas of greatness, therefore, occasionally disappear in the later stages we would deceive ourselves were we to conclude from this that they had not existed." Bayle, l. c., p. 547.

same individual an interchange between hypochondriacal melancholic states on the one hand, and maniacal on the other, quite recalling to mind the so called *folie circulaire*. There ought not, therefore, as has been done by Falret,* to be established a melancholic (hypochondriacal) and an expansive (maniacal) variety, according as the one or the other form of mental disturbance is present at the commencement of the disease; and more especially as (a circumstance which I have had many times an opportunity of observing) a state of mental depression can as well follow upon a state of mania as *vice versa*. It is a well-known assumption, that in the ordinary uncomplicated forms of maniacal mental disturbance, a stage of depression precedes the maniacal. We shall not here attempt to prove in how far this assumption is founded on fact; but if we consider, as has been done, slight transient states of anxious disquietude as stages of depression, then this also occurs very frequently before the outbreak of mania in the paralytic insane. In spite of this apparent similarity in the outbreak and nature of the psychical phenomena in simple and in paralytic insanity, there nevertheless stands prominently forward, even in the beginning of the disease, an essential difference in the paralytic insane. For, while in an ordinary hypochondriacal, melancholic, or maniacal patient, the intelligence either remains intact, unweakened, in the background of the psychical disorder until either recovery takes place or a stationary condition, with gradual, often very remote (coming on after many years), sinking of the mental power sets in, in the paralytic, the mental disturbance is from the first based on the foundation of mental weakness; and simultaneously with the setting in of the hypochondria, mania, &c., the intellectual powers, particularly the memory, undergo a very marked, generally rapidly progressing, change. It is not, therefore, the form of the mental disturbance as such—the *delirious conceptions, emotions, &c.*, which from the first characterise the paralytic insanity—but the generally and rapidly advancing *psychical weakness* which goes hand in hand therewith. This it is, therefore, which certainly imparts to the delirious conceptions of these patients something peculiar—if one will, specific—in so far as, owing to the psychical weakness, an inwardly connected, in some degree logical and systematic, development of the insane ideas from henceforth becomes impossible; one idea after another is rather forgotten, and the

* J. Falret, *Recherches sur la folie paralytique*. Paris, 1853.

most absurd and contradictory are connected to each other, without even the necessity of establishing an inward connection being felt. To this we must in the present state of our knowledge look for an explanation of the senseless, silly delirium of greatness; and the same remark applies to a certain species of hypochondriacal delirium occasionally found in these patients, and which Baillarger would wish to be considered "specific." There are, for instance, a number of these patients who, presenting in their physiognomy and manner a mixture of stupidity and deepest depression, manifest conceptions, the essential subject of which is, in the various individuals, quite as uniform and unvarying as that of the delirium of greatness. The patients consider themselves physically changed, transformed; sometimes this change extends to certain organs, and sometimes to the whole body; their head has become larger or smaller; they no longer see with their eyes nor hear with their ears; their throat and bowels are closed, and they can eat no more; the food taken does not reach the intestines, or it immediately glides through them, &c., &c. This transformation may be also transferred to surrounding objects, inasmuch as other persons are declared to be merely ingenious dolls, disguised persons,—all things are taken for feigned. Unvarying though ideas of this kind generally are, still they are, as such, no more to be considered specific in paralysis than the conception of greatness; but only the nature of their appearance, and their relations to the remaining powers of the already quite shattered understanding, the visibly weak influences of sentiment and of volition—in short, the traces of a general, actually existing, state of mental weakness—impart to them something of a special character.* At the commencement of the disease, however, the hypochondriacal conceptions, as such, are still of a, so to speak, mild character, and are quite analogous to those of ordinary hypochondria. The more the mental weakness increases, the more the delirium partakes of the aforesaid character of complete absurdity, senselessness, and want of logical connection, inasmuch as the ideas in connection with the hypochondriacal sensations are no longer subjected to any regulating influence. There is not, however, on that account any thing properly speaking "*specific*" to be observed in this, provided that by the term something defi-

* Very analogous ideas, in both directions, are often observed in epileptics in whom psychical weakness has already set in. As regards congenital mental weakness this is not the place to enter into the subject.

nite has usually been contemplated. The same remarks apply to the ideas connected with the maniacal form, which, at the commencement, frequently no more resemble special delirious conceptions than do those of ordinary mania. The disease, therefore, apparently makes its first appearance under the garb of simple, slight maniacal exultation, beneath which the fundamental psychical weakness may for a time remain concealed from the uninitiated or superficial observer.

Nevertheless, the mental derangement does not always present itself as one of the so-called forms of hypochondria, mania, &c. There are very many cases in which, at the commencement, and during the greater portion of the course of the disease, there can only be observed a gradually progressing diminution of the intellectual powers, with its accompanying phenomena, finally terminating in the profoundest dementia, without special emotional states or delirious conceptions having been manifested; merely a certain degree of motor excitement, partaking somewhat of the nature of a dream, and coming on particularly at night, aimless wandering, dressing and undressing, desire to leave the house, &c., become apparent, at any rate in the latter stages. The condition, therefore, may either continue without delirious conceptions being at any time developed, until death takes place; or, during the course of the disease, not unfrequently shortly before its close, violent manical conditions with ideas of greatness, or hypochondriacal states, may appear. The essential character of this mode of appearance of the psychical derangement is, however, for a long time exclusively to be determined through the progressing weakness of intelligence, and absence of other special forms of insanity.

Besides the disorders of the intelligence which we have been describing, there appear, especially at the commencement of the disease, other symptoms which are to be regarded as cerebral. To these belong *headaches*, sometimes so very intense that the patient runs with his head against the wall; sometimes manifesting themselves by a dull sense of pressure; the seat of this is generally the frontal region, and they are often associated with sensations of giddiness. Finally, *neuralgias*, either of a well-defined character, or consisting rather of vague neuralgic sensations, which are, probably, of cerebral origin, are frequently observed.

In the foregoing description, it has been specially insisted upon, that the intellectual derangement is of an essentially advancing, progressive character, and at the same time,

proceeds from the commencement with the signs of mental weakness. Although these facts are very general, attention must, nevertheless, be called to the circumstance, that temporary improvements in the mental affection take place, which seem to border on recovery, and perhaps, indeed, in exceptional cases, are to be considered as such.* It is certainly very remarkable, that a patient who for a long time has appeared to be completely sunk in the most profound apathetic dementia, in silly hypochondriacal delirium, or very grand ideas, may improve to such a degree, that it is difficult, even after years have elapsed, to discover any indication of mental weakness. Such improvement, bordering upon recovery, occurs in its highest degree of course seldom; but to a slight extent much more frequently, and is analogous to similar phenomena in the motor sphere, although they do not always go hand in hand. It is often quite as difficult to decide with reference to the psychical as to the motor affection, whether we have to do with a simple retrocession of the symptoms, or with actual recovery. We are not even aware in how far the fundamental morbid processes are capable of a partial or complete recovery. This subject will be again discussed with reference to the motor disorders.

The *motor disorders* affect principally the tongue, specially considered as an organ of speech, the facial muscles, the extremities, and often also the sphincter muscles of the bladder or rectum. The disorder of speech is most characteristic, and very easily recognised. At first, there is remarked, though otherwise the conversation is fluent, now and then a slight difficulty in the pronunciation of a syllable or of a word: it seems as if the patient stumbled, as it were, over the word; still this disturbance is so slight that it is scarcely striking. At other times, the speech becomes from the commencement slower, more monotonous, the individual syllables are more accented; it is as if the patient spoke with a certain degree of circumspection, such as is observed in states of slight intoxication. If, in the course of the disease, the disturbance becomes greater, the patient markedly stammers, certain syllables or words are pronounced scarcely intelligibly, and, at last, mere inarticulate noises pass from the lips. The tongue itself, which at the commencement frequently presents only a well-marked fibrillar tremor of its muscles, is at last affected also in its simplest movements, those independent of speech. It

* Very interesting cases (one with double amaurosis) are to be found in the Discussions of the Soc. Méd. Psych. Ann. Med. Psych. 1858, IV.

is often, during a certain exertion, during strong convulsive movements, projected from the mouth, again withdrawn with a jerk, and thrown to and fro, so that the simple voluntary movements can no longer be performed. The facial muscles also, especially those of the lips, fall into similar tremulous and convulsive movements, both in these attempts and in speech, so that a convulsive grimace accompanies these acts. Occasionally, rythmical convulsions of individual facial muscles unconnected with the act of speech, also peculiar movements of the lower jaw, grinding of the teeth, &c., are observed. Unilateral paralyses of the tongue or of the face either do not occur at all or, where they have been observed, play but an unimportant part, in so far as they exhibit, as a rule, merely transitory, suggestive, and incomplete phenomena, which, as we shall see, can generally be referred to certain *attacks*. Certain changes also occur in the voice, without paralytic symptoms being distinguishable in the affected organs. The voice loses its normal tone, and becomes gradually rough, flat, and even acquires a nasal or bleating character.

Complete paralysis of the muscles of the eye, so far as my experience goes, does not occur; but in an early period of the disease double vision occasionally exists. In regard to this, I—as the patients at this period do not attach importance to their own observations—am not in a position to say which muscles are chiefly involved.* On the other hand slight ptosis of the upper eyelid is frequently observed at a later period. Great importance has for some time past been attached to differences in the size of the pupils. Indeed, very considerable inequalities are frequently observed, together with diminished or almost suppressed power of reaction, in sometimes the one and sometimes the other. No importance ought to be attached to very inconsiderable differences in the pupils, especially when both react equally, and when no further examination of the intraocular relations has taken place. A pupil extremely dilated is very rare. In cases even where, as we shall see, atrophy of the papilla of the optic nerve, causing amaurosis, can be distinguished, the size of the pupil is only medium.† Extreme myosis, so that the pupil-

* By the time the patients seek admission into the Asylum a minute examination of the muscles of the eye by means of double pictures no longer leads to certain results, owing to the psychological weakness.

† Billod (Ann. Méd. Psych. II., 1863) observed that in a paralytic with double amaurosis (atrophy of the optic nerves) the pupils afterwards became strongly contracted.

lary opening is reduced to the size of a pin's head, or the pupils are almost punctiform, is of more frequent occurrence,

The motor disorders of the *extremities* have been described and interpreted in very various ways, without the observers—with a few exceptions—having been properly aware of these differences, and taken the trouble to give credit for them. As the name paralysis, incomplete paralysis, &c., &c., indicates, the idea primarily entertained was that of a paralysis, or rather paralytic-like weakness, which gradually extended to all the extremities, and at the same time its distinction from other *complete* paralysees, which affect only one or other extremity on one side (hemioplegias) was brought prominently forward. On the other hand, it has been argued by other observers* that the question—at least, at the commencement—is not so much regarding a paralytic weakness as an *irregularity* in the movements, which are executed by jerks in individual impetuous impulses. Bouillaud compares the disordered movements of animals whose cerebellum has been removed to those of paralytics, in so far as in both cases the co-ordination of the movements is disturbed, and argues against the designation general *paralysis*; “truly a peculiar paralysis,” says he, “in which the movements and the sensation are maintained, but the co-ordination of the movements is abrogated!” The descriptions of authors refer chiefly to the inferior extremities, particularly to the gait of the patients, and are, in spite of their differences, all founded upon fact. How far they are to be considered as dependent on various anatomical lesions we shall afterwards discuss.

With regard to the character of the gait and the disorder of movement of the lower extremities, there may, in my opinion, be primarily distinguished two clinical groups. The patients belonging to the *first* have an extremely characteristic gait, which in every way corresponds to what is known regarding the so-called tabic disease—*Tabes Dorsalis*. They lift their legs high and throw them outwards with a certain degree of force, plant them firmly with the heel first, and progress in an uncertain and staggering manner, by strides, with the toes pointing outwards, and at last generally cannot walk without support. All the paralytic insane who present *this* gait, though they can stand firmly with the eyes open, at once begin to stagger or fall down when they shut their eyes. Moreover, in such cases, the disturbance in the gait very frequently (though not always) precedes for a long time the mental disease.

* Falret, l. c., p. 113.

Very different is the disturbance in gait in those patients belonging to the *second* group. Instead of strongly and violently lifting and throwing forward the legs, as if about to stumble, they lift the foot very little from the ground, whereby the gait frequently becomes somewhat sliding, but without the extremities being dragged, as in actual paralysis. They, therefore, proceed slowly, with legs apart, and are often easily tilted over backwards or forwards. They create the impression of a person who, walking upon a very smooth or shaky surface, feels insecure, therefore in every moment seeks the utmost possible number of points of support, taking short steps, lifting the feet very slightly, and walking upon a broad basis, with legs apart. The movements are characterised by their slowness; the gait acquires, therefore, a somewhat helpless, awkward, and clumsy character. It, although in itself much less characteristic, differs essentially from the throwing forward and swinging of the limbs in the first group, but at the same time the appearance of insecurity, the frequent reeling to and fro, and staggering, particularly in turning round or coming upon unforeseen impediments, are common to both. I will call this, to distinguish it from that first described (the *tabc*), the *paralytic* form of gait. The patients who present this form of locomotion, do not stagger with shut eyes, and in them the affection of the limbs does not, in the majority of cases, become plainly apparent until the mental disease is far advanced. Although these two forms of gait are very different in the height of their development, there is at the commencement often merely a slight modification, appreciable only to the attentive observer, or one who has formerly been acquainted with the patient. The walk, without becoming actually insecure, acquires a certain peculiar stiffness, as if the legs were made of wood. It seems as if there was some stiffness of the knee joint impeding its free movement; the steps become shorter and more rapid, the patient sets his foot in a somewhat groping manner; but all these phenomena are of so little account that the act of walking is not thereby hindered. This stiff, awkward form of gait might, perhaps, be looked upon as a transition form, as it appears to precede and introduce both the *tabc* and the *paralytic* varieties.

Regarding the individual movements of the extremities and their power of motion it is always found that patients, when confined to bed, can execute all necessary movements effectually. This is the case during the greater portion of

the course of the disease, in both classes of patients. Not until far on towards the end does the power of performing the coarser movements appear also to be diminished; but it must be acknowledged that here any exact examination seems as a rule to be impossible, as we have not the means of distinguishing whether and to what extent the patient, now sunk in profound dementia, is still susceptible of voluntary impulses. Still, in many cases, it can be ascertained, and, indeed, in patients of both categories, that the power of voluntary movement of the legs, even while lying in bed, becomes reduced to a minimum, and in most cases contractions of the knee and ankle joints also set in. Before this period the patient is often unable to stand on one leg, or to mount a chair without support; * a fact which likewise indicates a diminution of the motor power.

In the upper extremities the disorder shows itself principally by an increasing want of precision in the more delicate movements, while the coarser are still well and energetically performed. The handwriting becomes irregular, scarcely even readable, the patient experiences great difficulty in buttoning his clothes, and only succeeds after numerous fruitless clumsy attempts, while the pressure of the hand and the stroke of the arm are yet powerful.

Besides, there is frequently observed, both in the upper and lower extremities, a tremor which may increase from the slightest—scarcely noticeable—vibration to the most violent convulsions. This tremor becomes particularly apparent when the limbs are being transferred from the state of rest to that of movement. It becomes impossible for the patient to carry a spoon in his mouth without aid, as the continual convulsive trembling of the arms, intermingled with occasional convulsive jerks, cause the contents to spill. Similar phenomena occur in the lower extremities. As long as they are supported, in sitting or lying, no tremor is perceived; but as soon as the patient rises from a chair, or attempts to walk, the legs fall into trembling and jerking movements, which cause the whole body to shake, and may become so strong, that through them alone the gait becomes very much affected. In general, all these motor disorders, including those of gait, are more noticeable in the transition from rest to movement. Spontaneous contractions coming on by

* The patients succeed in getting one foot upon the chair, but they cannot so balance themselves as to get the other up also. Remak was the first to attach importance to this test.

starts, and independent of motor impulses, such as are seen in the facial muscles, occasionally occur also in the limbs. In the lower extremities, I have seen these developed to continuous jolting convulsions, owing to which, when sitting with knees bent, the legs were violently knocked against each other, or jolted up and down for minutes together. Phenomena of this description, of tremor, convulsions, and occasional violent contractions, occur in both the tabic and the paralytic forms.

Although, according to what has been said, the motor disorders are characterised as general, still there is occasionally observed more or less *complete paralysis of a single limb*, or of *one-half of the body*, attended by states of contraction, resembling paralysis the result of apoplectic affections of the brain or spinal cord. As these paralyzes are, for the most part, associated with special (apoplectic or epileptiform) attacks, we shall speak of them while describing the latter. We have only now to mention the functional disorders of the bladder and rectum. The great majority of these patients, in the more advanced stages of the disease, pass their urine and fæces involuntarily; it is difficult to make out whether this is mainly due to paralytic conditions of the sphincters, or to imbecile forgetfulness. Nevertheless, sometimes at an early period of the disease, and before such a mental condition can be taken into consideration, the dependance of the involuntary evacuations upon a functional disturbance of the sphincters can be certainly shown. Alternating with incontinence, there are frequently observed a frequent desire to make water and retention of urine on the one hand; and desire to go to stool and persistent constipation on the other. All these disorders of excretion can be ascertained to be independent of psychical defects, especially in those patients who present the tabic gait, as in them they occur before the dementia is highly developed; in the others they do not generally appear until the period of profound mental destruction sets in.

The motor disorders which we have described, present the peculiarity that they occasionally step remarkably into the background, and indeed may almost entirely disappear. This is true both of the disorders of speech and of those of the extremities and sphincters. In a series of cases the disease, though from its psychical phenomena entitled to be designated paralytic insanity, proceeds to its termination in death, without the occurrence of motor disorders. We shall again revert to these cases of *latent paralysis*, as they may be called.

It is very difficult to make any general statement regarding the condition of the *cutaneous sensibility* in the paralytic insane. True, the assertion has been made that anæsthesia is one of the first symptoms in the outbreak of mental disease, which afterwards may give place to normal sensibility (Croizant). There is nothing more unfounded than this assertion, which will not bear criticism, and is unworthy of further discussion. It is generally impossible to test with accuracy the condition of the cutaneous sensibility in certain states of mind, and therefore, we are almost entirely limited to facts obtained during relatively lucid intervals. These incontestibly show that in a great number of cases the cutaneous sensibility and power of localization are, as tested by the finger and needle, pretty normal. If the dementia be further advanced, the patients are occasionally no longer susceptible to strong impressions of pain; sometimes they are, and, indeed, either condition may give place to the other in the same individual within a short period of time. From this no conclusion can be come to regarding the presence or absence of the *power of conduction* of sensory impressions. In certain cases, however, an actual involvement of the conducting power is apparent even before the commencement of the psychical disturbance: this is observed only in those who presented the tabic form of gait before the appearance of the mental symptoms. But, on the other hand, a marked disorder of the cutaneous sensibility cannot *with certainty* be authenticated in all paralytics with the tabic gait; the patients more frequently complain of *pains* of a cutting, lancinating, shooting character in the lower, and more rarely, in the upper extremities, before the full development of the mental symptoms; and, indeed, such patients may either subsequently present the tabic or the paralytic form of gait. As the psychical symptoms advance, the complaints concerning these pains generally cease.

Of the specific sensations, we shall only here specially allude to the sexual feeling. In certain cases it is manifestly increased, as is seen by the patients becoming addicted to masturbation; at other times there seems to be, from the commencement, a gradually increasing diminution of the appetite.

The *organs of sense*, with the exception of the apparatus of sight, do not ordinarily suffer any essential disturbance of function, although in the latter stage of the disease no definite opinion can be given concerning the sensation of smell and of taste. On the other hand, amblyopia or amaurosis

occasionally ensue in consequence of atrophy of the optic nerves. Slighter disorders of vision may often be overlooked, even though atrophy of the papilla may have taken place: in such cases the amaurosis may appear at very various times, sometimes very early, before, or at the commencement of the psychical symptoms, and before the motor disorders, sometimes not until the disease is far advanced.

A very essential part is played by the *apoplecti-* or *epileptiform*, or, as they are also called *paralytic attacks*, which appear during the course of the disease, and at very various periods. They consist of attacks varying in intensity from slight faintness to profound loss of consciousness, sometimes without simultaneous convulsive phenomena, and sometimes accompanied by slight or very violent tonic, followed by clonic convulsions of the face, body, or extremities, and affecting either one side in particular, or both sides equally. There also occur attacks similar in significance to these, but in which there is no loss of consciousness; the patient becomes somewhat giddy, confused, may stagger or fall, or be unable to raise himself if he sits down; abnormal sensations are felt in one or other extremity, but after a short time all is over without any special loss of consciousness having occurred. With these attacks, as well as with those first mentioned, there are frequently connected immediate motor disorders, most usually a disorder of articulation in speech, or, if this already exists, an aggravation of it is the result. Besides this, unilateral paralytic phenomena (hemiplegias) are very frequent after these attacks. Sometimes the facial and hypoglossus muscles, sometimes the extremities, and sometimes the trunk are affected. The paralysis may be complete or incomplete (paresis). Occasionally it has quite the character of hemiplegia, when the cutaneous sensibility of the paralysed side may be also involved. If convulsions have been present, and these have been chiefly or entirely unilateral, the paralysis affects the side which was convulsed. Paralysis or contraction of an arm or a leg, hanging over to one side, &c., may also ensue after these *slight* attacks, which occur without loss of consciousness. All these paralyzes have the peculiarity, that they very soon, in the course of a few hours, or days, either entirely, or almost entirely, disappear; so that afterwards only now and then are slight traces of them observable. In exceptional cases they remain persistent, and are subsequently followed by contractions of the paralysed part.

It appears that these unilateral paralytic phenomena may occasionally appear without being associated with the attacks

just described—at all events they are frequently met with without such attacks having been observed. But it must be borne in mind that it is difficult to obtain accurate information from these patients, not to mention the circumstance that the attacks may occur unnoticed during the night.

The *psychical* condition is generally very much worse after the attacks; the patient appears to be mentally weaker than before. Nevertheless, a general improvement also takes place in this respect, though ordinarily the psychical powers may be said to remain at a lower level than formerly.

The *general state of nutrition* of the paralytic insane is very variable. A high degree of marasmus is occasionally succeeded by great corpulence, which may last till death. Ordinarily, however, if other circumstances do not occur to shorten the life of the patient, there gradually sets in a condition of general emaciation and decay, which is frequently accompanied by a special tendency to the formation of bed sores.

We have, in the foregoing pages, been introduced to a morbid state which is indicative of some profound lesion of the brain. Indeed, there are observed after death certain palpable anatomical changes essentially connected with the membranes and the surface of the brain. These we shall, in the first place, very briefly allude to. To them belong pachymeningitic (in part hæmorrhagic) collections upon the internal surface of the dura mater and hæmatoma of the latter; further, there is presented opacity and thickening of the pia mater in very various degrees; in the slighter degrees, especially along the course of the great vessels and the longitudinal cleft, frequently associated with the formation of small granulations,* upon the surface of the convexity. Frequently the pia mater adheres to the cortical grey sub-

* These granulations, which L. Meyer thinks were quite unknown before he described them as "Epithelial Granulations of the arachnoid," had been already very accurately described by Bayle. He says (l. c., p. 463): "Les granulations dont nous allons nous occuper sont de petites aspérités arrondies, sphériques, excessivement ténues, qui ont quelque analogie avec celles qu'on rencontre à la face interne des membranes séreuses dans certains cas de phlegmasie chronique. Elles ont leur siège à la surface libre de l'arachnoïde cérébrale et de l'arachnoïde ventriculaire. Les premières sont assez rares, car je ne'en ai rencontré que sur un dixième environ des cadavres; on les trouve ordinairement vers le milieu de la convexité des hémisphères et quelquefois près de la grande scissure; elles ont un si petit volume, qu'on ne peut les apercevoir qu'à une forte lumière, et qu'elles échappent le plus souvent au toucher." Meyer also says that he saw them first in a brain which was lying in the sunshine, and compares them, like Bayle, with the well-known granulations of the ependyma.

stance of the brain, so that in drawing it off greater or smaller pieces of the latter remain attached to it, and the cerebral surface, thus denuded of the pia mater, acquires a torn and gnawed appearance. The adhesions occur essentially upon the summit of the gyri, and principally upon the convexity of the brain, by the side of the longitudinal cleft and on the anterior lobes. At other times, the pia mater and its meshes are saturated and filled with serum; the membrane can then be easily removed without involving the surface of the brain. The ventricles, too, are very often much dilated by serous fluid, the ependyma is thickened, sometimes in the form of granulations. It has been further shown that in certain cases there is atrophy of the cerebral substance; this may in some degree involve the grey cortex, but chiefly the medullary substance. The consistence of the cerebral substance sometimes appears changed, the white somewhat firmer and tougher; the grey substance, especially in its most superficial layers, somewhat softer than normal. In the latter there is at the same time observed either a greater fulness of the blood-vessels, giving it a violet red colour, resembling wine grounds, or it appears pale and faded. The nerves at the base of the brain do not generally present any alteration; still cases occasionally occur of atrophy of the optic nerves, and the nerves proceeding to the muscles of the eye. In a case which I have described,* there existed atrophy of the 5th pair of nerves and of the Gasserian ganglion; in a more recent case atrophy of the olfactory nerve, of the same character as that of the optic in an individual who had amaurosis. I have reason to believe that the olfactory nerve is more frequently affected than has been hitherto acknowledged.

Now that we have generally described the clinical symptoms, and pathological anatomical conditions in this disease, we may in the next place attempt to explain the symptoms, and determine the nature of the morbid process. Attempts of this kind, founded upon the results of anatomical examination, have not been wanting. First of all, Bayle attempted to establish a detailed theory of the disease; he conceived it to be analogous to chronic meningitis. He assumed the existence of various stages by which the course of the meningitis could be clinically recognised, and classified them according to the following order: a stage of monomania (*Ambitieuse*), of

* Allgem. Zeitschr. f. Psych. XXI., p. 393.

mania, of dementia with motor disorders, and finally a stage of convulsive phenomena. The delirious conceptions, as well as the maniacal agitation, he believed to depend upon the irritating influence which the inflamed cerebral membranes exerted upon the cortical substance of the brain; the dementia and motor disorders he referred to compression of the brain, partly through congestion of the meninges (in the two first periods), partly through serous fluid (in the last stage); the apoplectiform attacks were considered to depend upon sudden congestion of the pia mater and of the brain; and the convulsive phenomena upon consecutive inflammation of the cortical grey substance (showing itself as superficial softening), or, in rare cases, upon serous apoplexy. But as we have already shown, the *actual* course of the disease, and the anatomical conditions, do not at all correspond with these supposed stages. For example, we may here merely mention, not to speak of many other facts, that most violent attacks of convulsions constantly occur without any such involvement of the cortical substance—that is, without softening of it and adhesion to the pia mater; and again, this change in the cortex is frequently found in cases where no such attacks have existed. In like manner every point of Bayle's theory could be refuted by means of a series of observations proving the contrary. Although, certainly, the doctrine of chronic meningitis pursued in this manner obtained subsequently little encouragement, nevertheless it has continued, even to the present time, the standard theory of many physicians, and has merely been variously modified and confirmed. L. Meyer, proceeding more from the clinical symptoms, attempted to establish a connection between the relations of the bodily temperature in general paralysis and in other chronic febrile diseases, in order to conclude from it that we have to do with an inflammatory process, chronic in its course, which affects the meninges. Exacerbations of this process are to be recognised by increased maniacal excitement, accompanied by elevation of the temperature of the body. Afterwards, the same observer confirmed and extended this theory by means of pathological anatomical investigation, and he attempted to demonstrate that in most cases of general paralysis the condition of the meninges points to an inflammatory process as the point of origin, which at its height (in stages of exacerbation) proceeds to the formation of pus.* Further, he described changes indicative of a chronic

* Preliminary Communication in *Centralbl. f. die. Medic. Wissensch.* 1867. No. 8 and 9.

encephalitis which, in most cases, is developed from chronic meningitis.

If we consider for a moment the evidence derived from measurements of the bodily temperature, we shall find that one portion of the cases adduced is manifestly to be interpreted very differently from the way in which Meyer has done, inasmuch as other acute morbid processes more than sufficiently account for the observed increase of temperature. Thus, for example, in order to prove that an almost persistent maniacal excitement, with increase of temperature depending on exacerbation of the meningitic process, has passed, a case is cited, at the autopsy of which there were found extensive gelatinous infiltrations, yellow condensations, cavities, tubercular masses, &c., in the lungs, amyloid degeneration of various organs, and an abscess of the kidney. In another case the patient had sustained many injuries (finally, fracture of the lower jaw with abscess), in another the fever and delirium are manifestly connected with an attack of erysipelas,*—all circumstances which ought to have been brought under discussion as causes of febrile excitement. I shall not here offer a criticism upon the remaining cases, as I perhaps may, at another time, again refer to them; at present I shall content myself with stating, as the result of comprehensive special observations, that *the maniacal excitement of general paralysis does not in itself stand in relation to pathological increases of temperature*; that, on the contrary, in certain patients considerable deviations of the bodily temperature occur quite independently of the excitement, and sometimes exhibit a peculiar periodicity of type. But from this to conclude that there is chronic inflammation of the meninges, or merely an inflammatory process generally, is still not justifiable, and the comparison with similar phenomena in phthisis pulmonalis† is, owing to the very great difference of the two affections, quite inadmissible in order to come to a conclusion regarding the inflammatory nature of the malady. If such a comparison be instituted at all between the observations which I have mentioned and those of Jochmann—which, owing to the unsatisfactory nature of our knowledge regarding chronic disease, would be of no great value—it would perhaps be of more service to

* See L. Meyer. Die allgem. progress. Gehirnlähmung, eine chron. Meningitis. Berlin, 1858. Obs. 11, 10, 8, 9.

† Jochmann's Observations on the Temperature of the Body (Berlin, 1853), are used by Meyer for comparison.

deduce other conclusions from the observations, as for example that there is a similarity in disorders of nutrition, and that they are related to certain states of the bodily temperature. Respecting the alleged acute exacerbations in chronic meningitis, characterised by violent maniacal excitement and delirium associated with increase of bodily temperature, it ought to be borne in mind that—as recent observations have repeatedly shown—a very high bodily temperature, especially when associated with more serious general phenomena, may arise through the influence of the nervous system, not only without an inflammatory, but generally without any palpable local malady. A decided protest ought, therefore, to be raised against any one concluding from the joint presence of increased bodily temperature and general cerebral symptoms that there exists an inflammatory cerebral affection. There are whole series of other observations which ought to prevent us from arriving at such a conclusion; to describe these would be beyond the province of this article.

Moreover, the state of the brain, as revealed by *pathological anatomy*, is also brought forward by Meyer in defence of the view advocated by him, inasmuch as in the products of chronic meningitis, traces of an acute (purulent) may also be authenticated. Bayle has already expressed his opinion in regard to the idea that the chronic meningitis of general paralysis may be considered as standing in relation to an acute. He declares himself decidedly against it, as this chronic meningitis is more of a special affection, independent of the acute forms. The arguments advanced by Meyer are not such as would tend to convince us of the contrary. He appeals chiefly to the circumstance that he has found in a few—of course very exceptional—cases of paralytic insanity, an actual purulent meningitis, and presumes that it may, therefore, exist in other cases in the periods of exacerbation. I must confess that to me this mode of reasoning appears somewhat arbitrary and forced. If, in the immense majority of cases—and this will not be denied—no trace of purulent meningitis can be found, and only now and then a general paralytic dies of it, the natural conclusion is, in my opinion, that in these exceptional cases (which I also have seen) we have merely to do with an accidental complication which has become the cause of death. Why should not a general paralytic occasionally die of purulent meningitis? And do we not occasionally meet with *cerebro-spinal* meningitis in paralytics,

a disease which occasionally appears sporadically? Again, if purulent meningitis were the cause of the maniacal delirium and excitement, it ought to be found in those patients who die during such periods. This is, however—as I can conclusively show by many accurate records of cases and autopsies—very rarely the case; most frequently in such circumstances no appreciable change in the meninges can be discovered, much less purulent meningitis. But, exclusive of these avowedly very rare cases of actual purulent meningitis, traces of it are also said to be found in the frequently-occurring, scattered, yellow-white flakes, varying in size from a millet seed to a pea, inasmuch as distinct pus-cells in a state of fatty degeneration may be recognised by the microscope. Without doubt, lymphatic elements with more or less granular contents are found not only in these, but also in many other parts of the pia mater. Why these, however, ought to be designated pus-cells, which, as is known, possess no characteristic peculiarities, I cannot perceive. The argument, that because of the presence of a few such cells there has been purulent meningitis, when really nothing else can be found to support it, is certainly inadmissible. It would be somewhat analogous to concluding from the presence of individual cellular elements in the cerebro-spinal fluid, that free pus has previously existed in the cerebral cavities—an idea which nobody would entertain. I think that what has been said will suffice to dispel the idea of purulent meningitis occurring as an exacerbation in the course of chronic changes of the cerebral membranes in general paralysis. Very much more, however, might be said against it were we to make a comparison with the clinical symptoms in *actual* purulent meningitis.

Another theory regarding the nature and seat of the morbid process is founded upon changes in the *cortical cerebral substance*. Parchappe believed these to be constant, and that they were to be found in every case of actual general paralysis. The other changes viewed as inflammatory—thickening of the membranes, adhesion of them to the cortical substance, redness of the same, &c.—are, according to him, merely accessory. There is an essential change (softening), particularly of the middle layer of the cortical substance; a change which he considers can be authenticated through the ease with which the superficial layer can be separated. If this layer does not come with the cerebral membranes, he makes use of a scalpel, which he introduces

into the cortex and lifts the superficial layer. According to the ease with which this can be removed, would, in his opinion, an affection of the middle cortical layer be considered as proved. Upon this he founded his theory of the constant and characteristic softening of the middle layer, wherein the superficial layer also frequently participates, and which, at the commencement, presents the character of "inflammation" (hypercemia, extravasation, &c.), phenomena which subsequently disappear. The mode of proving the existence of softening, just described, requires no criticism; by such means one might prove almost anything.*

The changes of the cortical substance, however, still continued to be the point to which the attention of investigators was principally directed, and in more recent times the labours of Rokitanski assumed this direction. He believed that an increased growth of the connective tissue of the cortical substance took place, whereby there was produced, in the first place, a viscid glutinous fluid, rich in nuclei; then fibrous elements were formed. Thus a disturbance of nutrition, and destruction of the nerve elements, gradually resulted, the latter becoming transformed into "colloid" and amyloid corpuscles. As is well known, the minute anatomy of the human cerebral cortex is one of the most difficult and most obscure departments in histology; and, in particular, to ascertain the relation of the connective tissue to the nervous elements is a task which has not yet been solved. Even if we admit that in the case of individual and isolated elements we can arrive at a certain opinion concerning their nature, it is still impossible to judge of their relative relation *en masse*. Besides, Rokitanski has not described the methods he employed in arriving at these conclusions; indeed, it appears that he has examined the cortical substance of general paralytics in fresh preparations only, which makes it even more impossible to come to a conclusion on this point. The microscope reveals nothing which should lead to the opinion that there is an increase of the cellular tissue elements. There are, indeed,

* Another curious procedure, to be placed side by side with the above, has recently been attributed to Baillarger by one of his scholars. The cortical layer is scraped off with a scalpel, and it is found in many cases, especially in the anterior lobes, that the subjacent white substance is indurated, whereby comb-like prolongations of it come into view, which are very resistant and elastic, and resemble the epiglottis in appearance and color. ("Ann. Méd. Psych.," 1863, I., p. 32.) This is something characteristic of general paralysis. Magnan has taken the truly unnecessary trouble to prove that the same thing may be seen in healthy brains. Magnan, "De la lésion anatomique de la paralysie générale." Thèse. Paris, 1866.

conditions of induration of the cerebral cortex described as occurring in general paralysis, which might be interpreted in this way. I, however, have never met with this condition, and in the immense majority of cases, the cortical substance does not present even an approach to increased consistence, and the microscope always reveals quite as great a number of ganglion cells as there is, on an average, in the cortical substance of the healthy brain. In hardened preparations, too, which must be considered as more decisive in regard to the relation of the connective tissue to the nerve elements, nothing is observed which can be interpreted as an increase in the amount of connective tissue, and in particular, there is no distinct fibrillar structure and condensation, as, according to the views of Rokitanski, there ought to be—at all events, in old cases. Notwithstanding all this, an increase of connective tissue in the cortical substance in general paralysis has been set down as a well-established fact, and one author repeats the statements of the other without further investigation. Since the doctrine of the cellular pathology has become the governing, to accord with its tenets the increase of connective tissue has been demonstrated as essentially proceeding from processes of growth, and from the increase of the nuclei of the neuroglia. I consider it to be extraordinarily difficult to form an opinion on this, and dare affirm *that no one has as yet demonstrated such processes in a manner at all convincing, either in the grey or in the white substance.** I have not been able to convince myself of this growth of nuclei.

By means of a work published by Wedl, attention was first directed to the blood vessels of the cortical substance. In this, Wedl described certain changes in the blood vessels as occurring in other cerebral diseases; but similar changes were said to occur in the most various forms of physical disturbance.† The change consisted essentially in a growth of nuclei and thickening of the vascular walls. It seems, however, as if those who have described this condition as pathological were neither sufficiently acquainted with the normal appearance of the cerebral vessels, nor had heard of the researches

* Magnan (l. c.) considers the growth of nuclei to be an essential and constant change, especially in the white substance: L. Meyer afterwards in the "Vorläufigen Mittheilung," asserted that there was a growth of nuclei in the connective tissue of the white substance, and speaks, partly on the basis of this condition, of a chronic encephalitis. See also Demme, "Beiträge zur Path. Anat. des Tetanus," &c. 1859.

† Wedl, Contributions to the pathology of the blood-vessels. Sitzungsber. der K. K. Akad. Mathem. naturwiss. Class e. XXVII., p. 265 1859.

of Robin, else they could not have attached such importance to this peculiar condition. Robin, to whose labours attention was again directed, through His's description of the perivascular lymph spaces, describes the cerebral vessels as in the normal state very frequently surrounded (the smallest capillaries as well as the greater, being already invested with an adventitia of from six to fifteen hundredth millemetres) by a homogeneous, slightly striped, non-nucleated envelope, detached from the vessel, through which the wall proper, as well as the adventitia, may be recognised. In the space between this envelope and the wall of the blood vessel there is discovered sometimes a clear fluid, intermixed with molecular nuclei, sometimes small, free, round corpuscles, likewise fat globules (*granulations graisseuses*) and "hœmotosin." "This envelope follows the course of the vessels, but, occasionally, at the point of their bifurcation, it does not form a corresponding angle, but becomes wider than usual, and presents a dilatation in which the bifurcation of the vessel lies. The nuclei in the intermediate space are sometimes few in number, sometimes numerous, but they do not touch one another. They are sometimes congregated on one side of the vessel, sometimes they lay around it in such numbers as completely to conceal the proper wall of the capillary tube and its contents. These nuclei are found around the larger capillaries with adventitia, as well as around the smallest capillaries of the first and second order," &c. Whether we agree with the view taken by Robin of these sheaths (lymph spaces circumscribed) or not,* it is at all events clear that if we compare with this the descriptions and drawings of Wedl, Sankey, and others, set down as pathological, we shall find that many of the drawings of the former, and all those of the latter, are merely representations of a normal condition of the vessels.† The serpentine form, too, upon which great stress has been laid (produced by the contraction of the alleged newly-formed connective tissue around the vessels) is

* Robin brings prominently forward the resemblance of these nuclei to lymph corpuscles and white blood corpuscles, and their great number in the sheath of the cerebral capillaries; he describes them further as floating within the (lymph) sheath. Very recently Cohnheim has made the observation, which was not published at the time of the composition of this paper, of the passage of white blood corpuscles through the walls of the vessels, and in accordance with this, assumed the occurrence of these lymphoid bodies outside the cerebral vessels.

† I would refer these authors and my colleague, L. Meyer, to the drawings by Robin in "Recherches sur quelques particularités de la structure des capillaires de l'encéphale." "Journ. de Physiologie," II. 1859, p. 537.

frequently seen in a well marked degree in healthy brains. I have never considered this condition to be pathological, and have often given expression to my views. If no value can be attached to the interpretations of this condition of the vessels given by authors who are unacquainted with the normal aspect of them, that which has been recently said on this subject by Lockhart Clarke* is the more worthy of our attention. In the first place he completely confirms what has been observed by Robin concerning the normal condition, and calls it in all *essential* points the same as is described as pathological in general paralysis. Finally, however, he considers that he has frequently discovered a difference, in so far as in the brains of paralytics these envelopes are not unfrequently darker and more distinct than in the healthy organ. Occasionally—particularly when the vessels are convoluted—spindle-formed dilatations are observed along their course. Besides, “*hæmotosin*” is found in abundance.

As to the significance of the dilatations of the small cerebral vessels (ectasies, aneurisms) which are also brought prominently forward by some observers,† these were long ago described by Virchow,‡ and he pointed out at the time that they stand in no relation to changes of the surrounding tissue, do not cause symptoms during life, and generally have no material pathological significance; that they frequently occur in the central nervous system in various localities, and are probably to be considered as congenital formations. The same remarks apply to the frequently occurring dissecting aneurisms of the small cerebral arteries,§ which, indeed, are only important in so far as they might, under certain circumstances, predispose to capillary apoplexy; they have nothing to do, however, with changes of the surrounding tissues. It is well known that, notwithstanding this, capillary apoplexy is a very rare and accidental occurrence in general paralysis. Also, no importance can be attached to the presence of some of the corpuscles characterised as “*hæmatosies*.” This is evidently the same kind of pigment as is frequently met with in the brain, and which has been investigated by Stein in a number of cases of the most varied kind. In 62 cases, he found it 53 times in the cerebral vessels, and described it most faithfully as consisting of yellow round or angular corpuscles arranged in groups, lying chiefly in the middle and

* *Lancet*, 1 Sept., 1866.

† L. Meyer, l. c.

‡ Virchow, *Arch. III.*, p. 427; *XXX.*, p. 272. See also Virchow, “*Geschwülste*” *III.*, I. Hälfte, p. 456.

§ See the Description of Hasse, Kölliker, Pestalozzi, *Virch. l. c. III.*

adventitious layers, and also in the neighbourhood of the latter. He states his opinion that these corpuscles do not originate from the blood pigment, and considers them to be peculiar transformations of fat. He also refutes Buhl's theory concerning the significance of the pigmentary deposit, according to which the change in the vascular walls is due to the influence of a septic poison contained in the blood (this change was, besides in other cases, very well marked in a man who had been murdered). This condition is only of importance in so far as it may favour the occurrence of other cerebral diseases. He finds, especially, that an etiological connection exists in regard to the aneurisma spurium described by Pestalozzi.*

As Lockhart Clarke has shown, upon longitudinal section of a gyrus, there is occasionally observed, particularly in the white substance, a radieform series of stripes, verging towards the surface, which prove to be vertical fissures or oval slits, in which the blood vessels surrounded by the envelope ramify. These fissures (the perivascular lymph spaces of His, also of Robin) are, it is true, oftentimes very well marked. His found these canals uncommonly wide and easily injected in the spinal cord of an old drunkard who died in an asylum. In what proportion this condition is presented, in how far it is dependent upon changes in the consistence of the brain as such, and so forth, remain in the meantime questions requiring further investigation.

Exclusive of these conditions of the vessels, which have been interpreted as chronic changes, acute phenomena have also been described. In the first place, great congestion of the vessels, even to the finest capillaries, is found; in the second place, new vessels are said to be formed. It is true that in the brain in general paralysis the cortical substance is occasionally found to be, as the earlier writers (Calmeil and others) have described it, of a dark violet red colour resembling wine dregs. The microscope reveals a strongly developed network of injected vessels. Phenomena indicating a new formation of vessels—or rather what might be interpreted as such—have as yet not been observed by me, and the apparent increase in the number of the vessels I accounted for by the congestion owing to which they become visible.† This condition of the

10 Daniel von Stein—"Non-nulla de pigmento in parietibus cerebri vasorum obvio. Diss. inaug." Dorpati, 1858.

11 Mettenheimer appears to assume the existence of newly formed vessels in the cortical substance; subsequently L. Meyer described what he thought to be newly formed capillaries "whose walls often consist solely of several layers of round cells with large nuclei with a lumen so small that it seems scarcely sufficient for the passage of a single red blood-corpuscle," &c.

cortical substance is, however, far from being general; on the contrary, the grey substance often appears remarkably pale and faded. The question also naturally arises, to what extent may such hyperæmias be accompanying phenomena and consequences of the cause of death?—accidental phenomena; or are they indicative of a condition allied to inflammation? It is certainly very rarely that an opportunity offers of constituting and investigating conditions of acute idiopathic inflammation of the cortical substance in its earliest stages. An opportunity of this kind, which, owing to its rarity, was deemed of the highest interest, was recently presented to me in the examination of the body of an individual not insane, who died of phthisis in another department of the hospital. Two days before his death, the patient had a transient attack of loss of consciousness, without consequent paralytic phenomena; after it, he became again conscious and complained of violent head-ache. On the morning of the second day he was found comatose in bed, and in the evening he died. The autopsy revealed an enormous swelling of the white substance comprising a certain portion of the right hemisphere; the corresponding grey cortical substance was swollen and interspersed with numerous large bloody points and lines, manifestly hæmorrhages; it was also very soft. Examination by the microscope showed only very great fulness of the vessels, together with small microscopic extravasations of blood—no trace of growth of nuclei and no fat cells. If this condition of limited encephalitis of the cortex be compared with the brain in general paralysis, no one will deny that in the latter nothing of that kind is ever observed, especially no such swelling of the white and grey cortical substances, and none of these extravasations in the cortex. Had the case just described been of longer duration, a condition of red softening would have resulted.

While, on one side, investigators busied themselves to prove chronic or acute inflammatory conditions in the connective tissue, they on the other side drew the nervous elements, *the ganglion cells*, into the sphere of the discussion. Tigges, in part supported by the result of artificially excited inflammations, believed that the active conditions, which had hitherto been referred to the connective tissue, ought to be transferred to the ganglion bodies themselves, because he found increase of the nuclei in structures which he thought might be denominated ganglion cells. This observation has as yet not been confirmed, and the drawings given are in no way convincing.

I have never seen an increase of nuclei of this description in the ganglion cells, and must say that the analogy here raised with other cells does not apparently coincide, as the ganglion cells, or rather ganglion bodies, are not cells, but present a different and highly complicated structure. What it was which this exact observer saw, I really cannot explain.

Another theory regarding the nature of the change in the ganglion bodies has been started by Meschede. According to him, every degree of transition from congestive imbibition and parenchymatous swelling to fatty pigmentary degeneration, is found in the ganglion bodies of the inner layer of the cortical substance, especially in the convolutions of the temporal lobes, and of the convexity of the brain. This condition is most marked along the great cerebral fissure, then in the frontal lobes, much less so on the basal surface, and least of all in the convolutions of the posterior lobes. From the description and the drawings which Meschede has given of these ganglion bodies, it may be plainly recognised that he has seen nothing more than what may be seen in any brain of a certain age. Indeed, anyone who has not the opportunity to make these observations for himself need only compare the representations of normal ganglion cells to be found in any handbook of histology, with those portrayed as pathological by Meschede, and he will find it difficult to discover any other difference than that the latter are more imperfect representations, in so far as, for example, the imperfect condition of the apophyses indicates a less careful method of isolation. In regard to the brownish granular contents, however, no essential difference will be found. This pigment, or pigment fat, with which Meschede found the ganglion bodies filled in the cases of general paralysis, appears to him to be remarkable as characteristic of the process in that disease, especially as he found the ganglion bodies in another case (epileptic dementia) almost entirely free from it. Irrespective of the fact that here many differences occur, it is to be noted in this special case, that the individual referred to in the latter case was in middle life, whilst the paralytics in question had considerably overstepped that period, and the quantity of pigment in the ganglion bodies is found to increase with the age of the individual. The want of sharpness of contour, &c., in many of these structures, is also specially dwelt upon, and the author supposes that a gradual decay of them takes place, without considering how much may be here due to faulty methods of preparation, &c. A view of these

so-called "disorganised" ganglion bodies can not only be obtained from the cortical layer of any brain, but also from other parts, as for example from the great ganglia of the substantia nigra.

Finally, we have only now to mention those spaces filled with fluid, which have been described by some as special pathological structures. Hubrich has recently undertaken the task of establishing by evidence * the innocent nature of these bladders, which are regarded by some observers as dropsical ganglion bodies. I have never, with good means of isolating them, found those structures, which could undoubtedly be recognised as ganglion bodies, at all altered except in so far as regards the different degrees of pigment deposit, which occur in the normal state. In particular, I may call attention to the circumstance that, as yet, I have likewise been unable to discover in the cortical substance the peculiar structures which have been found by Virchow† in the retina, and regarded as altered (sclerotised) ganglion bodies, although, indeed, certain things were to be seen which reminded me of them.

That a transformation of the ganglion bodies may occur in the central organs has been proved by several observers. Virchow,‡ in a case of yellow cerebral softening, saw some of the ganglion bodies of the cortical substance in a state of fatty metamorphosis. Moreover, Mannkopff§ found, in a circumscribed spot of red softening of the spinal cord, several of these bodies in a slight state of fatty degeneration, together with many which were unaffected; but this is a subject connected with the entirely different processes of red or yellow softening of the tissues of the brain and spinal cord with fatty change, which we never find in the cortical substance in general paralysis. Mannkopff very properly calls attention to the great power of resistance of the ganglion bodies, and states that this is the only case in which he has ever, with certainty, observed fatty degeneration of them.

* M. Hubrich, on a peculiar behaviour of the grey cortical substance with water, "Zeitschr. für Biologie," II. Bd. 3 H, p 391.— Other changes of the ganglion bodies of the cortex have been described by Meynert, whose work lies before me only as an extract from the report of a meeting of the Gesellschaft der Wiener Aerzte of 22 June, 1866. I will, therefore, although I believe that the author has gone too far with his assertions, for the present pass it over. (See "Ueber die Hirnrinde und die Rarefaction ihrer Nervenkörper bei Geisteskranken;" "Wien. Med. Ztg." 22, 28, 1866.)

† "Zur patholog Anatomie der Netzhaut und des Sehnervn." Virch. Arch. X., p. 170.

‡ Virch. Arch. I. p. 147; X. p. 407.

§ "Ueber Acute Myelitis. Vortrag auf der Naturforscher-Versammlung zu Hannover." Amtl. Bericht, p. 254.

At the conclusion of this enumeration of the changes said to be found in the cortical substance of the brain, we must, alas! acknowledge that, as yet, no investigation of the cortical substance in general paralysis has been of any use, or led to any practical results; indeed, that, in great measure, observers have not appreciated the difficulties of the task. It is still uncertain whether, with our present means of investigation, such results can be obtained, although many things induce us to hope so. As for myself, I most willingly acknowledge my complete ignorance of the finer changes in the cerebral substance in this disease. What we do know consists merely in the cognisance of certain changes in its consistence, and in the amount of blood it contains, without these phenomena having, to any extent, a satisfactory significance. Ordinary (encephalitic) processes of a certain duration do not appear to occur; at all events, we find no granular pellets in the cortex and white substance, and the other traces of an inflammatory process are wanting. A condition of slight softening, accompanied by greater repletion of the blood vessels, without anything further to point to as the result of inflammation, is, according to our present ideas, quite inadmissible. Besides, this softening cannot be shown to be, to any extent, a constant occurrence.*

A better basis of opinion regarding the nature of the disease, would appear to be afforded by the changes in the meninges already apparent to the naked eye. Opacity, and even considerable thickening of them, especially along the course of the great vessels, is extremely frequent, so that, according to analogy with chronic inflammations of other membranes, we are to a certain extent justified in speaking of a chronic meningitis; in certain cases especially, changes of the dura mater (pachymeningitis) point to this. Does this chronic meningitis therefore explain the nature of the disease? Certainly not. It is often absent in cases of very protracted course, and even where there is adhesion of the pia mater to the cortical substance, a condition which might naturally be referred to an inflammatory process of this kind. Moreover, changes in every respect analogous, and to a like extent, are found in individuals who never had a single symptom of paralysis—in particular, in the ordinary

* Calmeil, who in his subsequent larger works characterised the disease as *Periencephalitis chronica diffusa*, described many things in the cerebral cortex; but owing to his evident ignorance of microscopic appearances, he could not say what it was which he saw, although he inferred from them that there was inflammation. See his "*Traité des maladies inflammatoires du cerveau.*" Paris, 1859.

chronic forms of insanity. We may therefore, at most, infer that the cerebral changes lying at the foundation of the paralysis very frequently go along with chronic inflammatory conditions of the meninges, are accompanied by them and stand in a certain relation to them; but not that the fundamental morbid process is identical with a chronic meningitis, or under all circumstances depends upon it. What connection it has with the *adhesion* of the delicate membranes to the cortical substance, and what significance is due to it, is likewise not clear. I have already stated that it is sometimes found and sometimes not found in the most different cases clinically. We have reason to hesitate before attributing it to purely physical or mechanical causes (dryness of the membranes, softness of the cortex, &c.), as, in the majority of cases, it appears to be chiefly confined to certain parts (the anterior lobes, the summit of the brain)—a circumstance which seems rather to point to an actual pathological process; however, this is still not a perfectly satisfactory argument. Recently instituted investigations have not tended to explain the matter; * perhaps, it is in some way related to the lymph spaces of His.

Finally, the decrease in volume of the entire cerebral mass which not unfrequently results, has been considered as explanatory of the nature of the disease. This diminution is ascertained, primarily by the appearance which the brain presents, and secondly by the presence of a large amount of fluid in the ventricles and in the meshes of the pia mater (the sub-arachnoid space); it being supposed that this fluid could not have originated otherwise in the closed cranium than at the cost of the cerebral substance; besides, however, the actual weights of the brain have been taken. Indeed, through this means it has been shown that, in many cases, sometimes the entire brain and sometimes certain portions of it (Parchappe), are unusually light. It would be too far from our purpose to enter here upon a criticism of these weighings and the general conclusions deduced from them, which are not always made with the necessary care. That, however, in many cases an actual, and not inessential, diminution in the weight of the brain really takes place is undoubtedly proved by them. This condition has been characterised as atrophy, and observers were in part disposed to consider the paralytic

* See Besser, "Allgem. Zeitschr. f. Psych." XXIII. p. 331; Mettenheimer, "Ueber die Verwachsung der Gefäßhaut des Gehirns mit der Hirnrinde." Schwerin, 1865. Magnan has recently discovered that by injecting with water the carotid and internal jugular of the same side, existing adhesions become easily separable. l. c. p. 30. This has, if I mistake not, been already asserted by some one in England

mental disease anatomically as simply an atrophy of the brain, and in part attempted to place the latter in definite relation to the condition of the meninges, the chronic meningitis. In regard to the latter, they either expressed themselves guardedly inasmuch as they left uncertain the nature of these relations, or they spoke plainly of a *primary* atrophy as being the cause of the chronic meningitis, and of a *secondary* atrophy as being a consequence of it. But this atrophy cannot of itself be considered as the original and essential morbid process, as it is found in other forms of insanity more chronic in their course * which present no symptoms in common with general paralysis, and moreover, it by no means exists in all cases of the latter. To discuss whether, and in how far, the atrophy may be considered as a subsequent product of an originally different (inflammatory) process of the cerebral substance is, from what has been said, until new facts be ascertained, an entirely fruitless task.†

(To be concluded in our next.)

A Visit to the Lunatic Hospital at Granada. By C. LOCKHART ROBERTSON, M.D. Cantab.

The *Hospital de los Locos* at Granada is the oldest lunatic asylum in Europe, having been founded by Ferdinand and Isabella shortly after the conquest in 1492. It was therefore opened some fifty years before the first Bethlehem Hospital, which stood in the present Bethlem Court, off Bishopsgate Street. It has apparently been carried on these two hundred and fifty years without any alteration in the original structure or any advance on the method of the original treatment. I induced to visit it last April, from a notice of it in *Ford's Handbook*. "At the corner of the *Plaza del Triunfo* (he writes) is the *Hospital de los Locos*, founded by Ferdinand and Isabella, and one of the earliest of all lunatic asylums. It is built in the transition style, from the Gothic to the Picturesque, having been finished by Charles V. The initials and badges of all parties are blended. Observe the *patio* and light lofty pillars. The filth and want of management of the interior is scandalous, and yet this is one of the lions which Granadians almost force an Englishman to visit; possibly from thinking all of us *Locos*, they imagine that the stranger

* See the weights of the brain, by Parchappe.

† The specific gravity of the brain has also been frequently investigated. Regarding the very doubtful results afforded by this, see the latest article on the subject; Bastian, "Journal of Mental Science," Jan., 1866.

will be quite at home among the inmates." The asylum is a two storey square building, with enclosed courts, which form the patients' airing courts. They are of small extent, and excluded from all view by the buildings, which, however, shade from the sun. In one of the courts I noticed a large summer house, over which a vine was trained. The dormitories contained twenty-five beds each, and were large and well ventilated. Single rooms opened off them, with rather unpleasant arrangements (to English ideas) for night stools; but then all these arrangements in the best hotels in Spain are nasty to a degree, and at the railway stations, if possible, worse. What a boon the earth closet system would confer on travellers in Spain! The patients, about 250 in number, were on the whole quiet and orderly in their conduct, and fairly clothed and tolerably clean, when contrasted with the population at large. So quiet was the whole system that I did not hear one sound in all my visit, but then the Spanish people are a quiet, phlegmatic race, patient of suffering, and who stupify themselves with the constant and excessive use of tobacco. I saw one man in permanent restraint, with formidable leg locks and chains, but he could walk freely, and had the use of his arms. There was, I was told, no straight jacket in use at the time of my visit, but I was shewn a strong implement of the sort, with a lot of leather and straps about it, and which was said to be frequently required. The patients had separate dining halls, and the food appeared to be abundant, and of the quality used in the adjoining general hospital. Neither the dormitories, nor day rooms, nor dining halls had any glass whatever in the windows, but were secured with large iron bars and red wooden shutters for night; but then it must be remembered that this arrangement is general in that part of Spain, and that the majority of the poorer houses are without glass windows. The glorious climate of these countries renders the use of glass a luxury. There were no fixed baths of any kind, and washing was done in wooden basins and pails, I was told. I did not see them, but I could not help thinking of the glorious bath *la Carcel de la Reina*, the neglected ruins of which I had just seen in the Palace of the Alhambra. There was no employment whatever provided for the patients, and no means of amusement. They apparently spent their time in walking up and down the long narrow galleries—unprovided with seats or other furniture—and in lying about in the airing courts. There was no evidence of any ill-treatment or harsh conduct on the part of the attendants.

The most curious part of the asylum was the department appropriated to the acute and violent cases, of which there were about twenty on both sides. These patients were placed in a detached block, consisting of single rooms only, and all their clothing was removed, and they lay naked in their cells, covered up with clean chaff straw. One or two were also provided with a sheet. Several of the patients, I was informed, had been many months under this treatment. The windows being open the cells were well ventilated. The authorities considered these "soft and pleasant surroundings" to be the best form of treatment in all cases of violence and excitement. Just as Dr. Thomas Monro told a committee of the House of Commons in 1815, with reference to his treatment of mania by periodical bleeding and vomiting, that it had been the practice invariably for years, long before his time, that it was handed down to him by his father, and that he did not know any better practice, so do these well meaning Spanish officials follow the traditions of their fathers. They knew no other treatment for destructive and violent cases, the superintendent quietly told me. In looking at these unfortunate patients in their cells, lying each in a state of nature, with a little soft chaff and straw about them, by way of curative treatment for their disease, I could not help thinking of how ideas revolve in circles, and that a recent writer in this journal had been forestalled in his advocacy of a similar method at Colney Hatch for "the treatment of a certain class of destructive patients," by the practice which for generations past has been followed at Granada.

The superintendent who admitted me into the asylum, and who sent an attendant to accompany me in my visit, was a layman, a good natured, kindly man, who evidently wished to do the best for his charge. Like most Spaniards, he expected a small *douceur* for his trouble, and bowed very politely on the receipt of half a *douro*. He appeared well informed as to the number and situation of the lunatic asylums of Spain, and was altogether an intelligent man.

I passed out into the sunshine after my visit to this mournful receptacle of suffering, more than ever of Ford's opinion that the date of the ruin of Granada may be accurately fixed at the 2nd of January, 1492, the day the banner of Castile first floated on the towers of the Alhambra. The Moor would hardly have left such a monument of ignorant neglect lying under the walls of his much loved Alhambra.

OCCASIONAL NOTES OF THE QUARTER.

Tennyson's Lucretius.

Few, if any, among our poets, past or present, have succeeded so well as Tennyson in the difficult, and, one is almost tempted to think, dangerous art of portraying the psychological features of a mind trembling on or passing the verge of madness. His short poem "Lucretius," published in Macmillan's Magazine of May last, is an admirable study in psychology; in it he displays, with great subtilty and entire truth to nature, the horrible tumult which goes on in the mind of a man whose reason is failing, and who feels that it is failing—the terrifying sense of will mysteriously and brutishly enslaved, as though some vile spirit had taken possession of it; the hateful, but uncontrollable irruption into the mind of distressing or disgusting thoughts and riotous imaginations; the horror, anguish, and despair caused thereby; and, finally, the desperate determination to end all by an act of suicide. Beyond all measure of misery is the misery of a mind thus passing into the riot of madness, and conscious of its approaching doom.

The poem represents a soliloquy of Lucretius, the Roman poet, to whom his wife, finding him cold, and fearing that she has lost his love—because, being occupied with his meditations, he hardly responded to her manifestations of affection—administered a love-potion, brewed by some witch, in order to lead his "errant passion home again."

"And this destroyed him; for the wicked broth
 Confused the chemic labour of the blood,
 And tickling the brute brain within the man's
 Made havoc among those tender cells, and check'd
 His power to shape: he loathed himself."

Allowing the poetical license of the baneful witch-brewed broth, the pathology is truly scientific; one of the recognised modes of causation of insanity being by a poison bred in the blood, or introduced into it from without, which makes havoc among the tender cells of the ideational nerve centres. And when the power of controlling the thoughts and shaping the imaginations is lost by reason of some mysterious

physical change in the inmost chambers of mental function, then the brute passions which lie deep in the nature of man—not dead, but dormant—often burst forth in a painful and repulsive manner. The sense of helplessness and mental distress produced in the sufferer is extreme: his dreams by night have a terrible reality, and in the day the evil desires and thoughts which beset him, in spite of every effort of the will, lead to paroxysms of convulsive anguish. Thus Lucretius is tortured:—

“Ye holy Gods, what dreams!
For thrice I wakened after dreams.”

The first dream, determined by the storm in the night, follows the current of his habitual philosophical meditations; he sees the bonds of nature crack, and the flaring atom-streams of her myriad universe fly and clash together again, “and make another and another frame of things for ever—”

“That was mine, my dream, I knew it—
Of and belonging to me, as the dog
With inward yelp and restless forefoot plies
His functions of the woodland; but the next!
I thought that all the blood by Scylla shed,
Came driving rain-like down again on earth,
And where it dash'd the reddening meadow, sprang
No dragon warriors from Cadmean teeth—
For these I thought my dream would show to me—
But girls, Hetairai, curious in their art,
Hired animalisms, vile as those that made
The mulberry-faced Dictator's orgies worse
Than aught they fable of the quiet Gods.
And hands they mixt, and yell'd and round me drove,
In narrowing circles, till I yelled again
Half-suffocated, and sprang up, and saw—
Was it the first beam of my latest day?”

Scrupulously careful not to pass the bounds of a decorous propriety in his narration of the hideous dream, Mr. Tennyson has scarcely conveyed to his readers an adequately gross representation of its loathsome character, and of the horror which it was calculated to produce. If the picture had been touched with something of the sensuality, without the sympathy, of a Swinburnian imagination, it might have been less acceptable to the critics, but it would have been truer artistically, and would have made more plain—what is not so plain now—why the tortured poet yell'd half-suffocated, and sprang up to meet the first beam of his last day.

After relating his dreams, Lucretius goes on in calmer mood to question whether he is thus sorely persecuted by horrible sensual images through the vengeance of Venus, whom he had dethroned in his philosophical system, using her popular name merely "to shadow forth the all-generating powers and genial heat of nature." Thence he passes by a natural transition to characteristic reflections on the nature of the gods:—

"The Gods! the Gods!
If all be atoms, how then should the Gods
Being atomic not be dissoluble,
Not follow the great law!"

This subject he meant to have treated.

"Meant? I meant?
I have forgotten what I meant: my mind
Stumbles, and all my faculties are lamed."

The sun, "another of our gods"—Apollo, Delios, Hyperion, "what you will"—rises, and the train of his thoughts is now drawn by the unconscious attraction of his own sufferings to the pain, the misery, the sorrows and diseases which this god daily looks upon with an eternal calm. Wherefore need a man, holding that the gods are careless, care greatly for them? Why not at once "plunge, being troubled, wholly out of sight, and sink."

"Past earthquake—ay, and gout and stone, that break
Body toward death, and palsy, death in life,
And wretched age—and worst disease of all,
These prodigies of myriad nakednesses,
And twisted shapes of lust, unspeakable,
Abominable, strangers at my hearth
Not welcome, harpies miring every dish,
And blasting the long quiet of my breast
With animal heat and dire insanity."

"Can he not fling this horror off again?" he asks, as nature regains her calm, and smiles "balmier and nobler" after the ravages of a storm? No; for even while he questions, Orestes-like, he is pursued by the furies of animal heat and dire insanity.

"For look! what is it? there? yon arbutus
Totters; a noiseless riot underneath
Strikes through the wood, sets all the tops quivering—
The mountain quickens into Nymph and Faun;
And here an Oread, and this way she runs
Before the rest—A satyr, a satyr, see—

Follows; but him I proved impossible ;
 Twy-natured is no nature : yet he draws
 Nearer and nearer, and I can scan him now
 Beastlier than any phantom of his kind
 That ever butted his rough brother-brute
 For lust or lusty blood or provender :
 I hate, abhor, spit, sicken at him ; and she
 Loathes him as well ; such a precipitate heel,
 Fledged as it were with Mercury's ankle-wing,
 Whirls her to me : but will she fling herself
 Shameless upon me ? Catch her, goat-foot : nay,
 Hide, hide them, million-myrtled wilderness,
 And cavern-shadowing laurels, hide ! do I wish—
 What ?—that the bush were leafless ? or to whelm
 All of them in one massacre ?”

The degradation is too great to be endured, and there is, at the best, so little bliss or nobleness within our little life as to make it not worth while to endure. Some unseen monster has laid “his vast and filthy hands upon my will, wrenching it backwards into his.”

“Why should I, beastlike as I find myself,
 Not manlike end myself ?”

He resolves to let Great Nature

“That is the tomb and womb of all,”

“Take, and forcing far apart
 Those blind beginnings that have made me man,
 Dash them anew together at her will
 Through all her cycles—into man once more,
 Or beast, or bird, or fish, or opulent flower.”

Still he has the assurance that his golden work, in which he told a truth, will stand until the cosmic order everywhere “cracks all to pieces,” and man, with “all his hopes and hates, his homes and fanes,” vanishes, “atom and void, into the unseen for ever.” An invocation of the “passionless bride, divine Tranquillity,” and then—

“Thus—thus: the soul flies out and dies in the air.”

With that he drove the knife into his side :
 She heard him raging, heard him fall ; ran in,
 Beat breast, tore hair, cried out upon herself,
 As having fail'd in duty to him, shriek'd
 That she but meant to win him back, fell on him,
 Clasp'd, kissed him, wailed : he answer'd, “‘Care not thou !
 What matters ? All is over : fare thee well.’”

Our quotations have been made with the aim of illustrating the psychology of the piece, not of displaying its poetical

merits ; indeed, to us it seems that its merits are not so much poetical as psychological. There can be no question that it is an exceedingly neat and most carefully finished piece of art ; but whether it is really, from a poetical point of view, the highest art, or not rather wonderful artifice, must be left to the determination of those who feel themselves competent to decide what is and what is not true poetry. Already a great deal has been written concerning it, in vague, eulogistic fashion ; but amidst the general and indiscriminating admiration we can scarcely call to mind an instance of true critical appreciation, or even of clear recognition of its meaning. Whatever else it may be, it is certainly a most subtle psychological representation ; the character of Lucretius's philosophical speculations is admirably preserved in the fragments of his reflections, and the invasion of his madness, its distressing features, the alternations of comparative calm in its course, and its termination in suicide are displayed with equal truth to nature. The style and imagery, though finished with an almost excessive care, and the treatment of the subject, chaste and simple as it is, hardly seem to rise to the height of the matter ; suggesting nothing which is not explicitly and indeed elaborately expressed, they yield no range of activity to the reader's imagination, but rather constrain the intelligence to occupy itself with the details of the art. There is no background of the unconscious ; all is conscious elaboration — deliberate, artistic execution. Then, again, we cannot help a feeling that the description of the shrieking, breast-beating, hair-tearing of the repentant wife detract somewhat from the beauty of the piece, and should have been left to the reader's imagination. Doubtless this picture is very real—real almost to commonplace ; but is it not the aim of high art to be, not a copy, but an idealization of nature ?

State Medicine.

A memorial presented to the Duke of Marlborough, Lord President of the Council, by a deputation representing a Joint Committee of the British Medical and Social Science Associations, deserves an attention which we fear it is not likely to get from a government, all the energies of which are required to preserve its own "frail and feverish being." The memorial set forth the evils which result from the present ineffective mode of conducting medico-legal inquiries ; from the im-

perfect registration of causes of death, and the absence of any registration of cases of diseases, and of children actually, or reputed to be, still-born; and from the absence of even a semblance of sanitary organisations in many of the towns and districts of the country. The memorialists pray for the appointment of a Royal Commission to institute a thorough, impartial, and comprehensive inquiry into all these matters. They append to their memorial a memorandum by Dr. Rumsey, of Cheltenham, whose exertions have now for many years been given to the praiseworthy endeavour to bring into a better position all matters connected with State Medicine. Dr. Rumsey's proposition, which is endorsed by the memorialists, is that specially skilled medical officers should be appointed to act in districts of extent sufficient to engage the whole of their time and attention. Their functions would be the following :—

1. To examine and revise all registers of births and deaths in Registration districts; to verify the fact of death in certain cases; to investigate and record accurately, in all uncertified or doubtfully certified cases, the cause of death.

2. To bring special knowledge and experience to the conduct, under authorized rules, of *post-mortem* examinations for coroner's inquests or other medico-legal inquiries; and to examine before burial the bodies of infants alleged to be still-born.

3. To act as medical assessors or referees in obscure or disputed cases—sanitary or medico-legal—which require forensic adjudication.

4. To advise and assist local authorities in carrying into effect regulations for the removal and burial of the dead, especially in crowded populations, and in times of pestilence or great mortality; and to inspect mortuaries or other places for the reception of corpses before burial.

5. To advise and aid local authorities, building societies, and other public companies, in regulating the site, construction, and sanitary arrangements of dwelling houses, especially of those proposed to be erected for the poor, and to certify satisfactory completion of such undertakings.

6. In all populous districts, to direct and aid the execution of measures concerning the health of women, within the meaning of the Contagious Diseases Prevention Act, 1866—when the main provisions of that Act shall be extended to the civil population of the kingdom.

7. Aided by skilled pharmacians or scientific chemists, to

inspect establishments for the sale and preparation of medicines, and to detect adulterations of drugs.

8. When directed by a proper authority to inquire into and report upon offences against the Medical Act, especially "infamous conduct in any professional respect" of medical practitioners, in their respective districts.

9. To inquire into the qualifications of midwives and nurses in the same districts; and to aid in carrying into effect any law which may be enacted for the examination and license of women intending to act in such capacities.

As things are at present, any registered practitioner is thought competent, and may be called upon, to undertake these duties; he may have to give scientific evidence in a court of justice respecting the cause of death of a person suspected to have been poisoned by arsenic, when he has never in his life before seen the morbid appearances of arsenical poisoning; or he may have to give an opinion on a difficult question of lunacy when he has never seen and treated a single case of insanity. The consequence is that he frequently makes a painful exhibition in the witness-box, and helps by his professional evidence, not justice, but the miscarriage of justice. The opposing barrister knows quite well what he will say before he opens his mouth, and prepares himself accordingly: he will simply talk Taylor's *Medical Jurisprudence*, which he has studied for the occasion. It is manifestly unfair to expect every one who is engaged in general practice to give skilled evidence on questions requiring special study and experience; and it certainly does not conduce to the ends of justice to make such a demand on the ordinary practitioner. There can be no dispute as to the urgent necessity of some reform.

How the reform should be practically effected is by no means so clear. We may venture to dismiss at once the opinion held by some, that by an improved system of medical education the practitioner may be rendered equal to the performance of such diverse and difficult duties. The real knowledge necessary for the satisfactory discharging of such functions cannot be obtained from lectures or by reading; it can be acquired only by special experience and study. And it is plainly impossible for any one who enters upon general professional work as soon as he finished his medical education, to obtain the opportunities of special experience in cases which will be quite exceptional in his practice, if they ever occur at all. Dr. Rumsey's proposition that skilled medical

officers should be appointed for certain districts, and that they should not have any private practice, but should devote all their time to the duties of their office, may be met with the objection that these duties are of such widely different characters that a man is not likely to be found competent for all of them. He may have qualifications fitting him for recognising the signification of *post-mortem* appearances, or of testing chemically the contents of a stomach, without having the necessary qualifications for giving evidence in a case of insanity. The obvious reply to this objection is that he will, at any rate, be much better qualified for such diverse duties when he has been specially educated for them, and when he has nothing else to do but to attend to them, than the busy general practitioner, who is, under present circumstances, called upon to perform them at a moment's notice. Moreover, it would be quite possible to institute an examination for specially testing the knowledge of those who wished to become candidates for these offices, and for conferring upon them some diploma or certificate of fitness. Thus armed with a special preliminary knowledge, they would not be long in office before gaining the skilled experience necessary for the satisfactory performance of most of their important functions. We say *most of their functions* as these are specified by Dr. Rumsey, because we think that they should not be called upon to act as medical assessors at trials. It is obvious that their functions before the case came on for trial must often place them in the position of public prosecutors, and thus incapacitate them from acting as independent and unbiassed referees. The selection of competent medical assessors should be left to the judge, or to some other competent authority, and should be made from men eminent in the particular branch of science of which special experience was required.

It is now some years since we brought the subject-matters of this memorial before the Annual Committee of Convocation of the University of London, with the aim of getting a recommendation to the Senate that a special examination in them should be instituted, and a special certificate of proficiency therein granted to those who had passed it; but our efforts were all but fruitless. In face of the opposition displayed, the results dwindled down finally to a recommendation that candidates for the 2nd M.B. examination should have their attention specially directed to the necessity of acquiring a knowledge of insanity, and that an

attendance of three months in the practice of a recognised asylum should be accepted in place of three months' attendance on hospital practice. We rejoice, therefore, to see that Dr. Rumsey's strenuous and persevering labours have now been successful in bringing the whole subject of state medicine so prominently into notice that there appears some likelihood of effective action being taken in the way of a very much needed reform.

Female Nursing in Asylums.

Why should female nursing be banished entirely, as it almost always is, from the male wards of our lunatic asylums? Is it a practice founded on valid reasons, and in harmony with the humane spirit of the modern method of treating insanity, or is it really a relic of the old and barbarous system under which the insane were cut off from all human sympathy, and dealt with as savage creatures outlawed from all human rights, and not amenable to any but the harshest treatment? These questions are now being asked; and that they are so, may be taken as evidence of the continuous progress of the humane and enlightened spirit which has all but abolished the means of mechanical restraint in the treatment of insanity. In the second edition of his work on the "Physiology and Pathology of Mind," Dr. Maudsley writes:—

"It may well be questioned whether the practice of banishing all female nursing from the male department of an asylum, and of leaving the patients entirely to the care of men, is not prejudicial. An elderly female nurse, of a kind and sensible disposition, could not fail to be a great comfort to those of the patients who require gentle and sympathetic attention, and might be expected often to exert a very beneficial influence over them. Assuredly some would yield to woman's persuasion more readily and with less feeling of humiliation than to the dictates of an attendant of their own sex."

Similar ideas are expressed more fully in the last report of the West Riding Asylum, by Dr. Crichton Browne, who has, moreover, tried the practice of introducing a female nurse into the male wards, with a successful result exceeding his anticipations. We quote the whole of Dr. Browne's remarks on this subject:—

"How to provide suitable and trustworthy attendants is certainly the great problem of the day in the management of our lunatic asylums,

and anything which may assist even in its partial solution, is deserving of consideration. Such an auxiliary seems to be found in the appointment of female nurses to male wards, an arrangement which tends to inspire the male attendants with gentleness and self-command, and confers great benefits upon the patients. One such appointment has taken place here during last year. A female nurse, the wife of an attendant, was placed, in April, in one of the largest male wards, containing 70 epileptic and suicidal patients. Her presence in the midst of these lunatics, many of whom are of impulsive or depraved character, has been productive of the most excellent and pleasing effects, which have transcended even the sanguine anticipations that led to her appointment. The ward has become quieter and more orderly under her influence, and a marked change for the better has taken place in the personal neatness and general deportment of the patients. A singular power of self-control seems to have been awakened in them, so that they are enabled to suppress those outbursts of violence, that abusive language, and those offensive habits, to which they used formerly to give way. Their whole nature seems to have been softened, and their tone of feeling ameliorated, by the simple expedient of introducing a kind-hearted female amongst them.

“ It is in the male sick wards, however, that female nurses will be found most useful. There they may prove invaluable; for it is open to doubt whether the high mortality which prevails amongst male lunatics, which is about one-third greater than that which obtains amongst females similarly afflicted, may not be *in some slight degree* due to defective nursing—to the absence of those sick-room comforts and attentions which women alone are capable of offering. No one can visit an asylum without being struck by the difference which exists between the male and female infirmaries. They may be alike in structure, furniture and arrangement, and yet they are widely different. An air of wholesome cleanliness and hopeful solicitude pervades the one, which has no parallel in the dismal precision or dreary apathy of the other. And no one but the initiated can know how much hangs upon the most trivial details of nursing, how much art may be expended in the mere smoothing of a pillow, and how often the issues of life and death are decided by the watchfulness or neglect of those who minister at the bed side. It is not too much to say that life is often prolonged, nay, saved, by a little intelligent care, and that it is often cut short by the want of that care at a critical moment. By far the greatest number of deaths takes place not, as might have been expected, at those hours when vital power is lowest, but at those when vigilance is most relaxed—when nursing is at its minimum. Seeing that this is so, that good nursing is of paramount importance, and that good nursing is not to be obtained from blunt, unsympathising men, however well disposed they may be, it follows as an inevitable corollary that female nurses should be added to our sick wards whenever it is practicable to do so. With the approval of your committee,

this arrangement will be carried out here as soon as a fitting opportunity presents itself."

We have met with similar remarks in some other asylum report, but regret that, having mislaid it, we cannot now refer to the passage bearing upon this important point. Now, however, that the question of female nursing of male patients in asylums has been definitely raised, and the practice actually tried on a small scale, we may look to have, before long, further information respecting the effects of its employment.

The Texas State Lunatic Asylum.

Most people are aware that Texas is not a very settled country, nor one in which a man of quiet disposition would choose to reside. Perhaps a story which we heard a few days since conveys as vivid a picture of the unsettled state of the country as it is possible to convey in a few words. An American gentleman being asked his opinion of Texas, replied, after a short pause of deliberation, and with the characteristic drawl and nasal twang, "Well, sir, if I owned Hell and Texas, I should let Texas, and elect to live on my other property." An opinion sufficiently expressive of the amenities of Texas. We have been reminded of the story by a letter in the *Pacific Medical and Surgical Journal*, giving a brief account of a visit to the State Lunatic Asylum of Texas. The writer, who gives no name, says that he found in the hall "what the doctor called a case-bed, but which looked more like a cage for wild animals. It was a box, a little wider and longer than a single bedstead, made of wooden bars, much resembling a wooden cradle without rockers, about a foot from the ground, on which a mattress and chamber were placed. The patient lies down, and a lid, composed likewise of wooden rods, two or three inches apart, is secured over him, about a half foot above his body, rendering it impossible for him to raise his head or roll around in it. It was, without exception, the most cruel contrivance I have ever witnessed for bodily torture, and to my great surprise, I found that three were in nightly use. A patient whom I saw in the office, apparently harmless, suffering from chronic mania following its acute stage, the result of onanism, was one of its unhappy inmates. The poor doctor, in my opinion, was as fit a subject for such treatment as his unfortunate patient."

After giving a few other details with regard to the establishment, which certainly appear to indicate a better condition of things than the description of the cage would lead

one to suppose, the writer goes on to describe one of the characteristics of the place—the darkened room for refractory patients.

“They were like the ordinary single bed-rooms, except that the windows above the door leading to the hall were closed with planks so as to shut out the light. The door had a slide window for observation from outside, and the window to the exterior was blocked up with masonry, converting it into a police-station cell, with the exception that no air or light was admissible. There was no furniture, no chamber, no padding to protect the patient from self-inflicted injury. It is true there was a ventilator at the ceiling leading to the hall, but the room had the dampness and close air of a vault; and even had the ventilator been in active operation it would not admit fresh air from without, but only the contaminated air of the hall, which in the female wards had a very perceptible uriniferous smell. The doctor informed me that usually half an hour’s imprisonment was sufficient to abate any refractoriness, though sometimes it required a longer period.”

He ends by saying,—“The water-closets were filthy, and in short there was no redeeming quality in the whole establishment. So much for political appointments.”

Lyon v. Home.

No one who has read the reports of the trials for witchcraft which were so frequent at one time, and has studied the sort of evidence given by witnesses and accepted by judges on these occasions, will be much surprised at the revelations made in this trial. There is no limit to the credulity of the ignorant and superstitious except the limit which there is in the nature of things to the audacity of the impostor and charlatan: what some people believe is measured only by what any one may confidently dare to ask them to believe. And it would seem to be almost impossible to speculate too much on the credulity of persons of a certain temperament in regard to all matters having relation to the unseen or spiritual world. Let the grossest absurdity be presented to them in the name of the spiritual, they accept it with a childlike helplessness of faith.

The facts of this extraordinary case lie in a small compass; the affidavits of the plaintiff and defendant, notwithstanding many contradictions, agreeing so far in essential points as to leave little doubt of what actually took place at the interviews be-

tween them. Mrs. Lyon, who is now 75 years of age, became a widow in 1859, her husband, with a grievously misplaced confidence, leaving her upwards of £100,000 at her own disposal. Of a superstitious and fanciful disposition, imagining throughout life that she dreamed extraordinary dreams, and even saw visions, she appears to have had the conviction that the spirit of her dead husband would be present with her, and that she would meet him again at the end of seven years. Gossiping concerning this foolish fancy to a Mrs. Sims, a photographer, she was directed to the Spiritual Athenæum, in Sloane Street, where, without the necessity of dying, she might hear of her husband through Mr. Home, the "head spiritualist."

Mrs. Lyon at once acted on this advice, and had an interview with Home on the 2nd or 3rd of October. A few days after this interview she transferred to him—previously an entire stranger to her—Bank of England Stock to the value of £24,000, in consequence, as she asserted, of communications received through him from the spirit of her husband, which enjoined her to adopt Home as her son. The defendant, though he denied much which Mrs. Lyon swore to, did not deny that the spirits did put in an appearance, and have their say at the interview; on the contrary, he admitted that the following message was received on one occasion:—"Do not, my darling Jane, say 'Alas! the light of other days is for ever fled;' the light is with you. Charles lives and loves you." But he solemnly asserted that he had nothing to do with causing the messages—that "whatever communications there were, were caused by the plaintiff herself, if they were caused by anybody." In fact, he, the great master of his art, whose speciality it was to be the medium of spiritual manifestations, was on these occasions the humble pupil of the superstitious old lady who had suddenly developed miraculous powers as a medium. Whether the spirits dictated the phraseology of the letter in which Mrs. Lyon made the gift, he did not say; but no one who reads the letter can feel much doubt of the truth of her statement that some spirit, embodied or disembodied, helped her. The letter was as follows:—

"Oct. 10th, 1866.

"MY DEAR MR. HOME,—

"I have a desire to render you independent of the world, and having ample means for the purpose, without abstracting from any needs or comforts of my own, I have the

greatest satisfaction in now presenting you with, and as an entirely FREE GIFT from me, the sum of £24,000, and am, my dear sir,

“Yours very truly and respectfully,

“JANE LYON.”

Mrs. Lyon affirmed that this letter was copied by her from a draught composed by the defendant; but Mrs. Lyon was fanciful and might have had an hallucination, while Mr. Home “trusts he is too much of a gentleman” to use even such an expression as “Death is all humbug.” The suggestion, therefore, that he, the honoured guest of emperors, prepared the draught for the old lady to copy, should, perhaps, be discarded in face of his denial. If a spirit was the agent, it must have been an evil minded and malicious demon, grinning all the while in its sleeve—for spirits have their earthly dresses, by which they may be identified, Mr. Home states; *a fortiori*, therefore, sleeves—at the clever way in which it was cunningly devising to trip up the great master. The internal evidence of the letter could hardly have been more damaging to the defendant’s case. It was morally decisive.

The absolute gift of £24,000 was not all the good which their kind spirits designed to confer on this peculiarly organized favourite of theirs. The passion for bestowing benefits seems to have grown by indulgence, as the appetite for swallowing them, capacious as this was originally, certainly did. Early in November a will was drawn up by a solicitor, the friend of Home and a spiritualist, by which Mrs. Lyon left all her property to Daniel, the adopted son. Again, on the 10th December, a further transfer of £6,000 stock was made to Daniel, he taking the name of Lyon; and in the January following, the same solicitor prepared, and Mrs. Lyon executed, an assignment to him of a mortgage of £30,000. Thus in the course of about three months he had obtained about £60,000. Mr. Home now left town to recruit his health and to digest his good fortune; but absence did not make the mother’s heart grow fonder. On the contrary, reflecting on what she had done, and listening to the representations of friends, she began to suspect that she had not acted wisely, and thereupon consulted an independent solicitor, who informed her that she had been grossly imposed upon, and advised her to institute proceedings to get back her property. What happened next tells very strongly in favour of the truth of her story regarding the in-

fluence under which she had made her extraordinary gifts ; for, before acting on the sensible advice given to her, she visited another medium, the daughter of a Mrs. Berry, and again consulted the spirits. The following conversation took place:—"Are there any spirits here that know me?" she asked. "Yes." "Who?" "Charles." "Is it my own husband's spirit, Charles Lyon?" "Yes." "Do you know of this business with Daniel Home?" "Yes." "Do you approve of it?" "No; it is an imposition." "What shall I do?" "Go to law at once; be firm and decided." "Was your spirit ever with Daniel?" "No, never." "Whose spirit was it?" "His own spirit." This singular consultation is entirely consistent, not only with her account of what took place at her interviews with Home, but with the traits of her character as displayed throughout the case. The result of it was that she peremptorily demanded the restoration of her property at a stormy interview which she had with the defendant. He was generously willing to give up the trust deed of January, 1867, on condition that he and his should be left in undisputed possession of the £30,000, which, "my darling mother, you, in your noble generosity and kindness of heart, gave me." However, that did not satisfy the "darling mother," who had been enjoined by the true spirit of her husband to go to law; and she immediately filed a bill in Chancery to set aside her transactions with the defendant, on the ground of fraud and undue influence unscrupulously exercised. It is a curious and important feature in the case that even then she was not, and seemingly is not now, convinced that spiritualism is a gross imposture; she believed only that she had been imposed upon by Home, who had brought up a lying spirit to work his purposes.

What was the defendant's answer to her case? A tissue of extraordinary statements which might well call up an angry blush on the face of the spirit of the age, if there be any such spirit. Assuredly the sublime faith of the prophet, or the matchless effrontery of the charlatan, never went further in any witness-box in any court of the world. He was a peculiarly organised being, and had been the subject of peculiar manifestations from his childhood; spirits were in the habit of coming of their own accord and conversing with him; they had lifted him into the air and floated him about the room, together with tables and chairs. Sometimes they were merry enough to play practical jokes, but a more serious effect of their manifestations was to convince unbelievers of the immortality

of the soul. They had never given any information on stock jobbing, but they would go so far as to recommend a particular doctor. The identity of a spirit might be established by the peculiarity of its dress—not the ghost of a dress, but the real article. What more natural than a desire on the part of the spirit to benefit by a paltry £60,000 a being so attractive to them, and for whose company they had always exhibited such a special liking! In one thing we heartily agree with Mr. Home—that he has a peculiar organisation. Certainly we do not think that any other person could be found in the world willing or able calmly to make such assertions in the witness-box. “Daniel is the only medium!”

But what, if we are to believe the defendant’s story, were the plaintiff’s real motives for so richly endowing him? “I believe,” he says, in his affidavit, “that she adopted me and gave me the £24,000 mainly because she wished to have some one to care for and enliven her, and who would be bound to her by ties of gratitude, and to bring her into aristocratic society, thereby spiting her husband’s relatives, and acquiring for her notoriety by the largeness of the gift. . . . The second £30,000 I never could understand, as she told me in general terms that she had made her will in my favour, and I solemnly believe that she turned against me and determined to heap insults upon, and, if possible, ruin my good name, because I refused to accept any other relations between us than those of mother and son.” We learn then from this statement that the plaintiff had two motives—first, to be brought into aristocratic society, which, by interpretation, was to be introduced to Mr. Home’s friends, some literary, and some in high social position; secondly, the passion for a warmer relation than that of mother and son. The former motive, which is consistent with some facts in the case, was hardly a sufficient one to induce the plaintiff to part so easily with her property; the latter, which is certainly adequate to instigate the perpetration of any folly, was unfortunately not consistent with certain letters of the defendant, and was indignantly denied by Mrs. Lyon. In fact, her counsel, Mr. James, Q.C., using the license of an advocate, described it as “a charge utterly without foundation—false, lying, and malignant, and discredited by every fact in the case.” If the charge made so solemnly was true, it certainly seemed a strange proceeding on the part of Home, when he found that Mrs. Lyon had refused to have anything more to do with him and was

determined to have her money back again, to write to his "darling mother," asking her to accompany him to the German baths, where he had been ordered by his doctor to go, and saying, "I took your name because I could in no other way show my esteem and respect for you. I felt that I was taking upon myself a solemn undertaking in the sight of God and man when I called you by the sacred name of mother." "If he had one spark of feeling or honour," said Mr. Druce, Q.C.—who would, doubtless, have been as honourably indignant on the other side, had he chanced to be retained upon it—"he would not have dared to pen those sentences, and then to put forward in his affidavit the revolting suggestions that she was determined to ruin him because he refused to accept any other relations but those of mother and son. By the language used in that letter, he had himself given the lie to that base calumny." The Vice-Chancellor in his judgment expressed his entire disbelief in the charge.

We have no intention of descending to the humiliating work of discussing the impudent pretensions of spiritualism. We hold it to be contrary to all experience of the order of nature that the spirits of the departed should appear in their habits as they lived, or in any habit, and incredible that, if they did, they would select such persons as Daniel Home, or Mrs. Berry's daughter, as the medium of communicating, by knocks and scratches on tables and like follies, with their friends on earth. Certainly, if they did select such company and such means, they must have lost a great deal of the self-respect and dignity as well as intelligence which they had during life. It is not, however, contrary to experience to suppose that people may be deceived and grossly imposed upon by juggling tricks, nor by any means incredible that impostors and needy adventurers may find their profit in practising such deception. Of the two hypotheses, therefore, regarding the so-called spiritual manifestations, we do not feel any hesitation which to accept.

Looking at the trial of *Lyon v. Home* merely as a question of legal evidence, apart from the bearing of spiritualism upon the facts, there could be small room for doubt upon which side the weight of evidence lay. The plaintiff's theory not only fitted well the facts of the case, as far as they were undisputed, but it was singularly consistent with the inconsistencies of her character, and even with the contradictions in her evidence. If the essential part of her testimony was not

true, she must have had an extremely acute solicitor to devise so complete and consistent a theory, and to work the evidence so well up to it ; if the defendant's allegations were true, and he was not the cheat and liar alleged by the plaintiff, then he was anything but happy in the mode in which his case was presented to the court. Perhaps it would have been wiser in any case for the guest of emperors, the frequenter of aristocratic society, the chosen organ of messages from the spiritual world, to whom the doctrine of the immortality of the soul is under obligations, not to have attributed the motives of an old lady, 75 years of age, desirous after reflection to get back £60,000 which she had hastily parted with, to a malignant desire to ruin him because of a slighted amorous passion. Strange that it did not suggest itself to the sensitive mind of this honourable gentleman, whose good name was so precious a possession, that he ought to return the money with which he had been bought when he was unwilling to execute the implied contract ! We fear that Mrs. Lyon has indeed robbed him of that which, not enriching her, leaves him poor indeed.

The chief interest of the singular case lies, after all, in Mrs. Lyon's contributions of materials for a psychological study. How any one possessing so much shrewdness and sense as she displayed could act so foolishly, almost passes comprehension. It was plain, however, that her common sense deserted her when she came under the influence of her superstitious and spiritualistic fancies. And yet not altogether : although it was overpowered it was not entirely silenced, as the following passage in her first letter to Home indicates :—"You must excuse me if I tell you at our first acquaintance I rather felt a repugnance towards you when you said 'Mother, I shall so love you.' I said, and drew away from you, 'The less of that the better I shall love your child.'"

Mr. Matthews, Q.C., the defendant's counsel, read this passage in his tediously long address, but how it, or much besides which he elicited in cross-examination, helped his case, it is not easy to perceive ; it plainly testified to an instinct of suspicion and repugnance excited in her mind at her first interview with the defendant. The same counsel asked her in cross-examination whether if her husband had been alive she would have obeyed him so readily as she did his spirit, to which she replied, "Certainly not ;" the strongest possible evidence of the truth of her story, and of the temporary madness which had blinded her

natural sense under the influence of spiritualistic operations and the agreeable attentions of the great apostle of spiritualism. She probably did not, as she said, care anything for her relations; she evidently cared a great deal for herself, liked her own way, and liked any one who let her have it, or flattered her into the belief that she was having it; and there can be no question that she was pleased and proud to have the head-spiritualist, whom emperors entertained and aristocracy ran after, bound to her as a slave. In the psychological revelation which she has made of herself, she has certainly not disclosed anything calculated to make her relations or any one else feel much regard or respect for her. But she has disclosed sufficient reasons why Mr. Home should not have accepted her extravagant gifts; or, if he did inconsiderately accept them, should have returned them instantly when she demanded them back. Whether they were made in consequence of direct communications with the spirit world through Mr. Home or not, it is quite evident that it was because of his spiritualistic fame and claims that Mrs. Lyon visited and so greatly affected him; that spirits did intervene at their interviews and influence her; and that she believed she was doing the will of her husband's spirit in adopting him. Unless, therefore, the Court of Chancery was prepared to acknowledge a belief in spiritualism, it was bound to set aside the deed and gifts as fraudulent and void. If it had been possible to condemn both parties in all the costs, every sensible person might have rejoiced at the decision.

If we were tempted to draw any moral from this strange and humiliating case, it would be this—that no husband who has not taken leave of his senses should leave a large property to his wife absolutely, whatever confidence he may have in her. There is no predicting what folly she may not perpetrate when deprived of the support of his judgment, and subjected to the influences always ready to be brought to bear from one quarter or another under such circumstances.

Another conclusion might be drawn regarding the folly of attempting by argument to convince sincere believers in spiritualism of its absurdity. No real evidence or strict reasoning will touch their belief; it will simply run from their minds, or rather, using Lord Westbury's expression, "that which they are pleased to call their minds," like water from a duck's back. A person's belief is not for the most part determined by logical reasoning, but depends mainly on the original structure of his mind, and on the character of its

education. There are persons of a certain temperament who will necessarily be Calvinistic; others who will of a certainty be Unitarians; others who will be Swedenborgians; others who will be spiritualists; and so on with all the variety of creeds, or no creeds, which prevail among men. While the mental development of the race is going steadily on, it is in truth natural to expect all sorts of strange beliefs to be entertained by individuals or by associations of individuals. If it were not so, the future would indeed look gloomy; if all conditions of degeneration and corruption of thought were not really necessary phenomena in the progress of mental development through the ages, just as daily death is a part of the history of life, the ridiculous pretensions and impudent juggleries of spiritualism might well excite alarm, if not despair. Happily the current of progress flows deep and strong beneath the foam and the scum which it casts up; these being indeed but the effect and evidence of its silent and ceaseless energy.

H. M.

PART II.—REVIEWS.

The State of Lunacy in 1867. Great Britain and Ireland.

PART I.—PUBLIC ASYLUM REPORTS.

WE have two official sources from which we may learn the condition and progress of the public asylums in this country. The one is the Official Reports of the Commissioners in Lunacy; the other, the yearly Reports published by the different governing bodies of these asylums. We shall in this article give a slight sketch of the condition of these asylums for the year 1867, as gathered from their own reports, so far as they have already reached us, and as our limited space will permit.

The Reports of the Commissioners in Lunacy are not yet published. We reserve their consideration for a future article.

Report of the Medical Superintendent, with the Accounts of the Treasurer, of the Norfolk Lunatic Asylum, for the year 1867.

The Commissioners report at their visit on the value of the associated dining hall and on the general improvement which has followed in the habits of the worst class of patients.

“Associated at dinner in the hall were 292, or 138 men and 154 women; and the conduct of every one was orderly in the extreme, as the dinner itself was good and ample. Several at the tables spoke gratefully of the way in which they were treated, and not a few of the patients thus assembled belonged to the most troublesome class. The result of extending to the latter the comforts and privileges from which they are too often debarred appears to have been strikingly beneficial in a great number of cases here. Some of the most quiet and industrious were pointed out to us as having formerly been among the most violent and apparently unmanageable; and a few in whom such habits have been cured are now acting as assistant attendants in

wards. In like manner, and by careful night nursing, the wet and dirty beds have been so reduced, from numbers formerly considerable, that last night's return in the male side showed none dirty and six wet, while the female return was only one of each. The straw beds are stated to be much diminished, though many are still retained; and we think the straw pillows should at once be done away with. Throughout the bedding was clean and good, and generally the means of washing in the dormitories is very sufficient."

Reports of the Superintendent and Chaplain of Broadmoor Criminal Lunatic Asylum, for the year 1867.

Dr. Meyer reports that thirty-six persons have suffered from fever within the year. He ascribes the presence of fever at Broadmoor to:—

Undrained land in the neighbourhood;

The quality of the water;

The deficient day-room accommodation in the 100 patient blocks;

To the position and construction of the water-closets.

Arrangements are in progress for filtering the organic matter from the water by the use of animal charcoal filters. The number of male patients in each of the two large blocks has been reduced from 100 to 86, and the cubic space in the dormitories occupied as infirmaries has been increased to 1000 feet. Sixteen male attendants have been discharged during the year, and 13 have resigned. Two female attendants left in ill-health, seven were discharged, and twenty resigned. Two laundry maids were discharged, and four resigned.

Referring to this unsatisfactory condition of the staff, Dr. Meyer gives the following account of the singularly liberal arrangements made by the Council at Broadmoor as relates both to the wages and well-being of the servants:—

"Notwithstanding the numerous changes from various causes, I have reason to be satisfied with the manner in which the duties are performed by the majority of the attendants, especially in the male division. The female division of the asylum has been opened a little over four years, the male division three years and ten months. Out of the 61 male attendants 15 have been here over three years: 20 over two years, and 10 over twelve months. It has been found much more difficult to secure the services of efficient and respectable female attendants: only two have been here since the opening of the asylum. As the question is of some importance, I may perhaps be allowed to

state the wages given to the attendants, and the other advantages placed here at their disposal.

Rank.	Male.	Female.
	Wages.	Wages.
Principal Attendant	£60 to £70	£40 to £50
Attendant	£40 to £45	£25 to £30
Assistant Attendant	£35 to £40	£18 to £21

The married men are provided with board and uniform, the single men with board, lodging, and uniform. The female attendants are provided with board, lodging, washing, and uniform. Comfortable cottages are provided on the estate for married men at a reasonable rent; a day school for the children has existed from the opening of the establishment; a weekly payment in the shape of school pence is made by the parents, but the amount thus contributed covers but a small portion of the expense. A Sunday school, established in 1863, has been continued with great regularity. The single men and the female attendants occupy well furnished rooms in the asylum. A comfortable reading room, with a library, smoking room, and bagatelle room has been provided on the estate, outside the asylum walls, to the support of which the male officers and servants contribute by a payment of 1s. on joining the service, and a monthly subscription of 6d. The female attendants and servants pay 6d. on joining, and 3d. monthly. In the reading room a dance is held every six weeks, and this winter penny readings have been established and most creditably supported."

First Annual Report of the Committee of Visitors of the Surrey County Lunatic Asylum at Brookwood, including statement of Cost of its Establishment, to be presented to the Court of Quarter Session, held at Reigate, on the 7th day of April, 1868.

The Report of the visitors contains a full description of the new asylum. The plans include provision for 650 patients, a chapel, superintendent's house, farm buildings, &c. The asylum was opened for the reception of patients on the 17th June, 1867.

The following is a statement of accounts, and of the amount expended:—

	£	s.	d.
Land, including conveyance, surveys, redemption of land tax, sewage irrigation, planting, and laying-out grounds - - - - -	13,412	19	1
Buildings, airing courts, and flues for warming and ventilating - - - - -	60,750	0	0

	£	s.	d.
Architect's commission - - - -	2,093	9	9
Clerk of works - - - -	350	0	0
Furniture, bedding, and clothing - - -	9,720	0	0
Gas works and gas fittings - - - -	1,000	0	0
Well and water supply - - - -	975	19	6
Hot water, engine and boiler, and engineer's work for warming and ventilating - - -	1,950	0	0
Committee and preliminary and miscellaneous expenses	1,000	0	0
Fittings, fixtures, linen presses, counters, ovens, building materials, iron railings, forming a third airing court on each side, and enclosures to the staircase - - - -	2,459	11	11
Clerk of works - - - -	345	6	9
Furniture, clothing, and bedding - - -	3,976	3	5
Gas works and fittings - - - -	590	14	0
Hot water, drying closets, cooking and steam washing apparatus - - - -	1,358	10	5
Committee, preliminary, and miscellaneous expenses -	2,153	6	5
Insurance of buildings from completion of contract to Michaelmas, 1867 - - - -	50	4	3
	<hr/>	<hr/>	<hr/>
	104,855	17	1

As the buildings approached completion it was considered desirable to appoint the Medical Superintendent, and accordingly, at the end of the year 1865, Dr. Brushfield, Superintendent of the Chester asylum, and who had been connected therewith fourteen years, was appointed to the office, and commenced his duties on the 1st March, 1866. It is said:—

“The Committee desire to express their great and unqualified satisfaction with Dr. BRUSHFIELD. His exertions and attention, as well to minute detail as to general management, have been unremitting. The fittings and furniture, the gas and water, engineering works and gearing, and the selection and arrangement of materials, required and received his greatest care. The organisation of a numerous staff of officers and attendants, of whom the greater part were new to the work and to each other, was a matter of no small difficulty and anxiety. However, all has been arranged with harmony among themselves, and comfort and attention to the patients.”

The water supply continues to engage the attention of the Committee. A report by Mr. Rawlinson on the subject is printed in the report. He recommended that the daily supply be obtained from the canal, the water of which, he says, is in

every respect better than any water now supplied to the metropolis. Professor May concurs in this opinion. The Visitors are more disposed to rely on an extension of the present surface wells and reservoirs.

We concur with the Commissioners in believing that the only real remedy for this grave defect "is to be found in sinking a very deep well." So urgent is the present deficiency, that the Commissioners consider it would be most unsafe, while the want still remains, to increase, except by a few cases of pressing emergency, the present cases—*i. e.*, half the beds in the asylum must at present remain unoccupied.

Essex Lunatic Asylum.—Report of the Committee of Visitors, the Medical Superintendent, and other papers relating to the Asylum. Printed by order of the Court of Quarter Session, 31st December, 1867.

Despite the unexampled liberality shown by the visitors of the Essex Lunatic Asylum in the salaries of the medical officers, and in the general comfort and indulgences to the patients, the maintenance rate is nevertheless not higher than that of other asylums; an economical illustration of the value of high paid services in the government of a public asylum. In every particular, medical officers, alike with the patients, are more liberally dealt with here than in any other county asylum, and yet the maintenance rate is exceeded by others similarly placed as regards cost of fuel, wages, &c., and is not above a fair average.

Dr. Campbell records a well merited tribute to the memory of Charles Gray Round, Esq., M.P., their first chairman:—

"In expressing my best thanks to your Committee for the courtesy which I have at all times received, as well as for that powerful and uniform support and assistance which has hitherto sustained and encouraged my efforts to carry your designs into effect, I have to deplore the loss the Institution has sustained by the death of one who, ever since my appointment here, has presided over your Councils, and who was to myself personally a courteous, a kind, and faithful friend, and a most valuable adviser. During that long period the affairs of the Asylum occupied much of his time and attention. Its interests and its management he watched over with constant solicitude. By the officers and attendants he was looked on as a friend, and many of the unfortunate inmates expressed the most lively sorrow when they received the sad intelligence of his death. One of the very last occasions on which he quitted his own house was to visit the Asylum, and it will not be matter of surprise to those who knew the deep interest which he took in its welfare, that till within a very short time before his

painful illness terminated in dissolution, his thoughts were occupied with its enlargement and improvement for the comfort of the patients, whom he was destined never to see again. He has gone from among us, yes, gone, but not from memory, for sure I am of this, that the blessings of all who knew him, rich and poor, will ever attend the mention of his honourable name."

Report of the Committee of Visitors and of the Medical Superintendent of the West Riding Pauper Lunatic Asylum, for the year 1867.

This Report contains much interesting matter. Dr. Crichton Browne has greatly improved the organisation of the asylum by substituting, on the resignation of Mrs. Paige, for the obsolete office of Matron, those of a Head Attendant and a Housekeeper. The visitors record the occupation of the new hospital, its cheerful aspect, and the facilities for careful nursing which its construction offers. The supply and quality of the water has during the year been the subject of great anxiety.

Dr. Browne records that—

"There have been several well-marked outbreaks of dysentery, and diarrhoea, and erysipelas, but they have not been of so severe a type nor so fatal in their results as in former years. The immediate removal of all patients affected by these disorders to the detached hospital, where they have enjoyed an unlimited supply of fresh air, cheerful surroundings, and careful nursing, seems to have been eminently beneficial to them. Single sporadic cases of Asiatic cholera, scarlet fever, and diphtheria, have also presented themselves and brought the detached hospital into use. It is highly probable that but for the complete isolation of these maladies which was thus practicable, they would have become more widely disseminated. The closest attention has been paid to the ventilation and warming of the building, and to the quality of the food supplied, and a minute investigation has taken place as to the character of the water derived from various sources. A series of analyses instituted some months ago by Professor Odling, revealed that none of the water consumed here was of a salubrious kind, and that procured from the surface of the neighbouring fields, and from one particular well on the premises, was highly impure. Considerable contamination from drainage was suspected in both these instances, and it was therefore thought prudent to cut off the water thus adulterated from all possibility of being used for drinking purposes. The well thus interdicted had long enjoyed a high reputation for the purity and excellence of its water, and Mr. Cleaton pointed out to me, after its evil qualities had been detected, that the nurses, who as a body suffered from typhoid fever, during its prevalence here, in much larger proportion than the patients, were in the habit of sending to it

for their drinking water. The patients had, of course, to consume the water laid on to the various wards, which is principally that supplied by the Wakefield Company. This, though far from pure, was pronounced less pernicious than the other waters above referred to. As it was stated, however, that the examination of it took place at an unfortunate time, immediately after a snow storm, and while the filter beds were undergoing repairs, and did not accurately represent its ordinary character, it was thought desirable to have a further analysis. A second series of specimens have therefore been submitted to Professor Odling, whose report we are now awaiting."

In contrast with the doubts which have elsewhere been raised as to the value of active medical treatment in the relief of urgent mental symptoms, Dr. Browne's observations are well worthy of notice :—

"The special cerebral conditions present in insanity, and the causes upon which they depend, are so various in kind, and sequence, and degree, that general and dogmatic assertions as to the influence of certain methods of treatment upon them, are not only uninformative and illusory, but betoken a misconception as to the work to be accomplished, and a want of that nice and scientific discrimination which can alone entitle to attention on such a subject. To dispose of the effects of narcotics in a sentence, is as if we would teach a language in a quarter of an hour, and yet there are some courageous thinkers who essay this much. Without attempting any such comprehensive survey, it may be here briefly intimated that the effects of medicines in controlling and curing mental derangements have been abundantly apparent. The experience of the year in this department has deepened the conviction that scepticism as to the power of physic is but too often the result of ignorance, idleness, and affectation, and has increased the regret that our asylum medical officers have not more time to investigate the action of drugs, and to fulfil thus their highest calling in one of the most fruitful fields of inquiry which is open to them. There is good ground for thinking that medical treatment is too lightly esteemed, and too early abandoned in many of our lunatic hospitals, and that their inmates are sometimes denied that full, patient, progressive, therapeutical curriculum through which they are entitled to pass. It may be questioned whether the higher rate of recovery in acute mania, may not be in some measure attributable to the fact that the noisy and turbulent behaviour of those affected by it secure for them that strict medical attention which is not expended on their less obtrusive neighbours. Their objectionable symptoms at least are treated, and their specific disorder is thus perhaps reached and relieved. It is at any rate indubitable that much might be done that is left undone in recent cases of mental disease, and that everything is still to be achieved for those of a more confirmed character."

Third Annual Report of the Glamorgan County Lunatic Asylum, for the year 1867.

The maintenance charge in this District Welsh Asylum exceeds that of Hanwell or Colney Hatch. The visitors anticipate an early reduction in their rate of 11s. The report of the Visiting Commissioners on the condition of the asylum is very satisfactory.

The medical superintendent appends to his report a medical appendix, chiefly devoted to casting doubts on the value of medicinal agents in the relief of the symptoms of acute and chronic mental diseases. So far has Dr. Yellowlees carried his sensitive dread of the injurious and perilous results of the sedative treatment, that he has, according to his own statement, *violated* the great principle of non-restraint, by substituting for medical agents the old expedient of strong gloves. We quote his own observations, commending Dr. Crichton Browne's [above quoted] views on this question to his consideration :—

“I confess, that rather than push these measures to what I think an injurious and perilous extent, I would, if all other means failed, resort to the use of gloves, which should enclose the whole hand and make tearing impossible, but yet leave the patient free and unrestrained. I have done this in more than one case for several successive nights, where every other means had failed; and with satisfactory results in correcting the destructive habits, and inducing the patient to use the ordinary bed-clothes.

“It may be that I violated the great principle of non-restraint, but I believe I did the best thing for the patient. In a natural reaction from the horrors of restraint, it is quite possible to go to an opposite extreme in condemning always and absolutely everything that resembles it. This is to render blind subservience to a name, and to forget that non-restraint is a good thing *only when, and just because* it is the best thing for the patient.”

Middlesex.—The Seventeenth Annual Report of the Committee of Visitors of the County Lunatic Asylum, at Colney Hatch, January Quarter Sessions, 1868.

The progressive improvements in the management of this Asylum which has marked Mr. Wyatt's chairmanship continues to be evinced in this report. Many improvements in lighting, ventilating, and warming the wards have been effected. Additional comforts in the shape of couches, wash-stands, baths, &c., have been provided for the patients, and

their means of amusement have been increased. Lectures, concerts, and theatricals, for the amusement of the patients, have been continued with great success, and the excursions beyond the boundaries of the Asylum, during the fine weather, have been productive of much pleasure. A reading-room has been fitted up for the use of the Subordinate Officers and Attendants in each Department.

The Asylum contains 820 male patients and 1,215 females. To the reports of the Medical Superintendents are appended a series of elaborate, but obsolete tables, which afford little or no information to the reader, and must have sadly wearied their clerk, who compiles them. We venture here most respectfully to urge on the consideration of the Visitors the importance of adopting in their annual report the tables recommended by the Medico-Psychological Association.

Sussex County Lunatic Asylum, Haywards Heath.—Ninth Annual Reports for 1867.

The Visitors report that all the new works and improvements at the Asylum have been completed for some months, and are now occupied by the patients :—

“The improvement to the Asylum is very great, as well in the increased accommodation afforded in numbers, the increased comfort of the patients before accommodated, and the economical working of the establishment. Although the cost of provisions and articles of consumption has been very high, the Visitors have hitherto been able to keep the sum charged for the maintenance of the patients at the same amount as before.”

The following extract from the Medical Superintendent's Report refers to these alterations :—

“The alterations which have been in progress since 1864 are now completed, and the house has been enlarged from 450 beds to 710. These are nearly divided between the male and female departments. This increased accommodation of 250 beds has been gained by adding a wing to the east and west extremity of the building, containing sleeping rooms (chiefly dormitories) for 250 patients, with the necessary attendants' and other rooms. The day room space for these additional 250 patients has been obtained by converting the dining rooms of the twelve wards into sitting rooms, and building out to the north a dining hall, with offices for each department.

“These halls measure 82ft. 6in. by 32ft. 10in., and contain 2,542 superficial feet, and 53,492 cubic feet, and are able to seat 350 patients each. They have now been in use for nine months. All the

meals of the house are served there, and the success of the experiment is most encouraging. Not only are the meals served with greater facility and order, but the opportunity of fuller supervision on the part of the head attendants leads to a better distribution of the food and obviates waste. The medical superintendent feels it due to these two officers to record the assistance he has received from them in thus re-organising the work of the asylum. It is not at any time an easy matter to alter the established routine of a large asylum, or to overcome the prejudices of the old patients and attendants of the house against new ways. The average number of patients absent from the hall at meals, averages (including the sick and infirm) six on the male side and twenty on the female. To these patients the meals are sent from the hall, and the plates, &c., are each time sent back to the hall scullery to wash. Thus all the smell of food, and confusion of cleaning the dishes and plates have been removed from the twelve wards, to the manifest improvement of the quiet, order, and ventilation. On the other hand the medical superintendent must add that the hope he had of using one of these halls for the weekly evening entertainments has not been realised. The difficulties of moving the tables after tea, and replacing them again for breakfast, and of bringing the male patients and their attendants to the female wing, have proved so insurmountable that he has proposed making shift with the old recreation hall, inconveniently small as it is.

“The alterations and new buildings have further led to the provision of a general bath-room for each wing, and in accordance with a suggestion of the Visiting Commissioners, printed rules have been hung up, both there and in the ward bath-rooms, for the guidance of the attendants. Each patient is twice weekly thoroughly washed in warm water and soap, and each patient has clean water and a clean towel for his separate use.

“The following Tables show the new distribution of the patients in their new day-rooms, and in their bed-rooms. The average allowance of space for each patient is 50 superficial feet, and 550 cubic feet in the sleeping-rooms, and 35 superficial feet, and 450 cubic feet in the day-rooms and dining-hall, giving a total for each patient of 85 superficial feet and 1,000 cubic feet.

“These measurements accord with the scale laid down by the Commissioners in Lunacy in their paper of Suggestions and Instructions on the Building of Lunatic Asylums.”

Hants County Lunatic Asylum Report, 1867.

In concluding their report the committee desire once more to place on record the high sense they entertain of the energy and skill which are constantly displayed by the medical superintendent, Dr. Manley, in the guidance and control of this large and hitherto constantly increasing establishment.

Notwithstanding the removal of the patients chargeable to the borough of Portsmouth and Southampton, Dr. Manley reports that there are now in the House 274 males and 335 females, or 609 patients; whilst the total accommodation, including the five beds at the Wickham Lodge, is sufficient only for 615 patients.

Dr. Manley examines the statistics of the asylum since its opening, fifteen years ago, and draws therefrom the following conclusions:—

“ Thus it appears that the number of females in this asylum has always been, and is likely to continue, considerably in excess of the males; that the number of patients chargeable to the county (for whom the Asylum was built) has been gradually increasing, and is likely still to increase; that whilst there has been comparatively little change in the rate of mortality, the per centage of recoveries has steadily increased, and with it, of necessity, the number of re-admissions; for it must be remembered that no disease is more prone than insanity to reappear in a person who has once suffered from an attack; that the mortality is greater and the recoveries are fewer amongst men than amongst women, but that women are more subject to relapses than men, and that the greatest causes of relapse are hereditary predisposition, intemperance, and domestic trouble, to which must be added, in the case of women, the condition of pregnancy and the puerperal state.”

Kent County Lunatic Asylum, Barming Heath, Maidstone. Thirty-fifth year. The Medical Superintendent's Twenty-first Annual Report.

In this county the Medical Superintendent's report alone is printed. It records an attack of small pox, arrested by the removal to the newly-purchased cottages at the back of the asylum of the affected cases, as also “some dozen cases of continued fever, including two nurses, one of whom died.”

Dr. Kirkman appears correctly to attribute the presence of typhus fever to the over-crowded state of the asylum. The additional buildings are in progress. The new offices, dining-hall, &c., being the second section of the enlargement of the asylum, were commenced in February. An additional seven acres have been purchased, having thereon three cottages. The total breadth of land now in the occupation of the asylum is 184a. 3r. 17p.

We hope that on a future occasion Dr. Kirkman will follow the example set to him by his revered father, and undertake the labour of digesting the statistics of this

asylum into the forms recommended by the Medico-Psychological Association. The tables he now uses, and which are those he inherited from Dr. Huxley, are useless, and refer only to the year's experience.

Richmond District Lunatic Asylum, Dublin. Report of the Resident Medical Superintendent, for the year 1867.

An increased rate of mortality and a decrease in the proportion of recoveries, together with the greater prevalence of mental excitement, evidenced in the general conduct of the patients, and by an increase in the number of attempts at suicide and escape, mark, says Dr. Lalor, the year 1867 as a less favourable period than average years. It is proposed to increase this Irish Metropolitan Asylum from 700 to 1,000 beds. The executive, adds Dr. Lalor, having submitted the plans for the enlargement of the asylum, and the taking of additional ground, to the board, the subject has received a large share of their attention. He thinks the board will have reason to rejoice that they have approved of the taking the additional ground and of improving the existing structural arrangements, concurrently with increasing the accommodation of the institution to the extent proposed.

Annual Report of the Waterford Asylum, for the year ending 31st December, 1867.

The Waterford Asylum was opened in the year 1835. It was originally designed for the accommodation of 100 persons. At two subsequent periods it was enlarged to the extent of admitting 160. At present two new wings are rapidly approaching completion, and a third addition has received the sanction of the Board of Governors, who have also signified their approval of the plans submitted for carrying it out. The structures in course of erection, together with the additional offshoot, now sanctioned, will raise the number of beds to about 200.

The Report of the Northampton General Lunatic Asylum, from January 1, 1867, to December 31, 1867.

The Committee of Management congratulate the Directors and the public on the continued and increased efficiency and success of this Lunatic Hospital. That success they attribute to the able and judicious management of Mr. Bayley, the medical superintendent, and to the zeal with which the officers

of the hospital have performed their several duties. They record with regret the loss of the services of Mr. Hingston, who has been promoted to the office of medical superintendent to the Isle of Man Lunatic Asylum. Arrangements are in progress to extend the work of the asylum by the addition of an idiot asylum.

The following memorandum issued by the governors will explain the progress of this scheme:—

PROPOSED INSTITUTION FOR THE TRAINING OF IDIOT AND IMBECILE CHILDREN.

1. The Governors of the asylum having resolved at their last annual Court to provide a detached building for the proper treatment of adult idiots, and the training of idiotic and imbecile children, desire to call public attention to the subject.

2. Idiocy is not without remedy, and therefore should not be left without help. It is no longer an opinion, but a fact, that the idiot child may be educated.

3. In speaking of the commencement of the Establishment at Earlswood, Dr. Andrew Reed says:—"The first gathering of the idiotic family was a spectacle unique in itself, sufficiently discouraging to the most resolved, and not to be forgotten in after time by any. It was a period of distraction, disorder, and noise of the most unnatural character. Some had defective sight, most had defective or no utterance, others were lame in limb or muscle, and all were of weak and perverted mind. How different the impression is at present many can testify. Here now is order, classification, improvement, and cheerful occupation. Every hour has its duties, and these duties are steadily fulfilled." The results of the moral and religious training are equally satisfactory, the idiot child being found to be more capable of religious than of any other instruction.

4. The industrial training in many instances has enabled the boys to gain an honest livelihood, and in others some considerable part of it. The work done by the girls is generally good, often excellent, and some of them have been fitted for respectable places in service.

5. It is obvious, to say nothing of the unspeakable blessing to the children and their parents, that a considerable saving of expense is effected, because those of the pauper class who are now able to gain an honest livelihood, either in whole or in part, must have remained a burden for life upon their respective parishes.

6. In the county of Northampton alone there are nearly 200 adult pauper idiots, chargeable to the union rates at a cost of from £2,000 to £3,000 a year; and it has been ascertained from returns recently made by the clergymen of more than 200 parishes, that (including those above pauperism) there are upwards of 100 children under the age of 17 either idiotic or imbecile.

7. With these facts before them, the Governors have determined to erect a separate building, in the first instance for the reception of 100 patients, at a cost of about £8,000. It is believed, upon careful estimates, that the school will ultimately become self-supporting, so that the asylum will still retain the character of a self-supporting lunatic hospital, having a surplus income which may be devoted to the use of those in poorer and humbler circumstances, who are suffering from the greatest of all human ills.

8. There are now in the asylum 36 idiots, 19 males and 17 females; amongst the former one under seven years of age. The governors are obliged by law to admit all mischievous and dangerous idiots that are sent to them from the Unions, and all harmless idiots sent by the Commissioners in Lunacy. It is painfully and distressingly evident that such association between idiots (some of them of tender age) and the insane must be attended with the most demoralising effects. These effects are thus forcibly alluded to by the medical superintendent:—"The adult idiot, if put amongst the better class of patients, is a horrible nuisance; if placed in the other wards, he gets ill-used and teased, and in time becomes worse than when admitted."

9. The governors feel that no words of theirs can add to the effect of these statements, which show incontrovertibly that an idiot asylum is almost a necessary adjunct of every well-conducted asylum for lunatics; and they appeal, therefore, with confidence to all who can sympathise with the heartrending distress of the poor sufferers of all classes, on whose behalf they make this earnest appeal, for such aid as will enable them to begin this important work immediately.

Report of the Committee of Visitors of the Lunatic Asylum of the North Riding of Yorkshire: Presented at the Epiphany Quarter Sessions for the Riding. Together with the Superintendent's Twenty-first Annual Report, 1868. Presented at the Easter Sessions, 1868.

Dr. Christie has signalised his first year of office by abolishing the various methods of restraint employed by Mr. Hill. Thanks to his exertions, restraint has ceased to exist in any public asylum in England.

The Commissioners at their annual visit to the asylum made the following entry:—

"We have much pleasure in quoting the following entry, from the 'Medical Journal,' made by Dr. Christie on the 28th January in the present year.

"All the strait-waistcoats, webbing, and spencers, with everything relating to the system of mechanical restraint, were this day abolished by special order, and the various appliances taken from the charge of the attendants and nurses."

"The result of this measure has been most encouraging, and several

patients who formerly were very constantly either secluded or restrained, or both, have greatly improved in every respect."

On this important question Dr. Christie, in his report, observes :—

"The working out of the new system and the tutoring of the staff have proved of advantage; and the exemption from scenes of great violence has testified to the wisdom of the measure; old patients, who formerly were considered so dangerous as to require constant restraint by the strait waistcoat, are now quiet and employed, aiding in their own person that great work so nobly begun by the revered Conolly. While means of coercion have thus been cast aside, others of a different character have been introduced to assist in soothing the excited brain, and restore the erratic to the paths of quietude."

Second Annual Report of the Committee of Visitors of the City of London Lunatic Asylum, at Stone, near Dartford, in the County of Kent. January Quarter Sessions, 1868.

The report of the Committee refers to the probable increase of the Asylum, in consequence of the Metropolitan Poor Act, 1867 (30 Vic., cap 6), enacting that the expenses of the maintenance of the lunatics in Asylums, registered hospitals, and licensed houses in the metropolis, except such as are chargeable on the county rate, shall be chargeable upon the Metropolitan Common Poor Fund, instead of upon the several unions as heretofore. Notice has been received from the Board of Guardians of two of the city unions, intimating their intention of sending a large number of patients, now maintained in the workhouses of their several unions, to the asylum.

The tendency of modern asylum architecture is towards the removal of all walls and barriers. The visitors of the City of London Asylum propose acting on the opposite course. They report :—

"The lowness of the surrounding walls of the Asylum has been brought under the consideration of the Committee by a communication from the vicar and inhabitants of Stone and its vicinity; and it is in contemplation to apply to the court to sanction the expense of elevating the walls, so that all future cause of complaint on this subject may be avoided."

An ample supply of water has been obtained by the deepening of the well, and the formation of lateral chambers.

Dr. Jepson kept the anniversary of the opening of the Asylum as a feast day.

The establishment is liberally paid and organised on the modern system, with a housekeeper and head attendant in each division. The supply of extra wine, spirits, and porter to the patients has been most liberal.

Tenth Annual Report of the Committee of Visitors of the Cambridge-shire, Isle of Ely, and Borough of Cambridge Pauper Lunatic Asylum for the year ending the Thirty-first of December, 1867.

The committee refer at some length in their report to the unusually painful circumstances connected with "the suspension and subsequent removal" of Dr. Lawrence from the office of Medical Superintendent, "in consequence of his incapacity to fulfil the duties of that office from mental derangement."

They report that the Commissioners in Lunacy, without any previous application from them, addressed the following letter to their clerk:—

"Office of Commissioners in Lunacy,

"19, Whitehall Place, S.W.,

"September 4th, 1867.

"SIR,

"The Commissioners in Lunacy are desirous, under very special circumstances, of communicating with the Committee of Visitors of the Cambridge County and Borough Asylum upon a subject not ordinarily falling within their province. They refer to the unhappy position and mental state of Dr. Lawrence, of whose permanent incapacity for the further performance of his duties as Medical Superintendent, by reason of cerebral disease, they are satisfied.

"The reports which, from several quarters, reached the Board, have been fully confirmed by personal interviews with Dr. Lawrence, who has been seen by some of the Commissioners at this Office and elsewhere, when in their opinion he exhibited unequivocal symptoms of incipient general paralysis.

"The immediate object of the present communication is to express a hope that the case may be considered by the Committee of Visitors as one for Dr. Lawrence's retirement upon a superannuation.

"The Commissioners have thought it incumbent upon them to submit the case for the favourable consideration of the Visitors, who may not be fully aware of the fact of Dr. Lawrence's serious malady.

"I am, Sir,

"Your obedient Servant,

(Signed)

"THOS. MARTIN.

"Clement Francis, Esq.

"For the Secretary."

"Clerk to the Visitors, Cambridgeshire Asylum."

The Committee proceed to record, apparently without any sense of its incongruity, the singularly shabby interpretation which they placed on the powers given them under the superannuation clause of the Lunacy Act, and on the kindly suggestion of the Commissioners in Lunacy in Dr. Lawrence's favour. They state :—

“It was unanimously Resolved,—‘That, subject to the approval of the Quarter Sessions of the County and Isle, and the Council of the Borough, as required by the 12th Section of the 25th and 26th Vict., cap. 3, and in consideration of the efficient services since September, 1860, as Medical Superintendent of this Asylum, whilst he was mentally capable, Dr. Lawrence be granted an annuity of £50 for twelve years, if he should so long live, by way of superannuation, he having become, by confirmed infirmity, incapable of executing his office in person, and therefore being within the terms of the 57th section of the Lunatic Asylums Act, 1853.’”

Dr. Bacon was elected to succeed Dr. Lawrence, and has signalised his first report by the adoption of the tables of the Medico-Psychological Association. The Commissioners in their report thus urge the appointment of an Assistant Medical Officer :—

“That the Medical Superintendent should still be without other than temporary assistance from time to time we much regret, thinking it essential that an asylum of this magnitude should never be left, even for the shortest period, without medical superintendence; and being of opinion that, in the absence of such regular help, it is impossible for one person, however ably he may discharge his medical duties, to give proper attention to the case books, and other statutory records. We, therefore, strongly urge for the consideration of the Committee of Visitors, the expediency of at once appointing a permanent Assistant Medical Officer at this asylum.”

The Report of the Committee of Visitors, Superintendent, and Chaplain of the Cheshire Lunatic Asylum. December, 1867.

The visitors report the erection of temporary buildings, to provide accommodation for the pauper lunatics of the county, pending the erection of the new Asylum. They were completed and ready for occupation in June, and consist of wards for male and female patients, near to and communicating with the main buildings. The entire cost amounted to £1,422; and though the expenditure may appear large for temporary buildings, they will ultimately save to the various parishes

in the county a very considerable sum beyond that laid out. The committee are able to state that they fully answer the purpose for which they were designed, and have in them at the present time about 50 patients.

At the meeting in December, Dr. Harper tendered his resignation to the Committee, which was accepted.

Dr. J. H. Davidson, the assistant medical officer, was appointed to succeed him.

Report of the County Lunatic Asylum at Rainhill. 27th December, 1867.

The visitors have under their consideration plans for adding to the asylum, so as to accommodate in all 1,000 patients, but are at present prevented, by the insufficient amount of land, from submitting these plans for the approval of the Secretary of State.

Undoubtedly, they say, in this district there is a necessity for increased asylum accommodation, and the Visiting Committee regret that they are unable to add to the one under their control. Further land can, it is believed, be had, but at a price—said to be about five hundred pounds per acre—which it may not be considered expedient to give.

The Commissioners, at their visit, refer to the inferior quality of the meat, and suggest for the consideration of the Visitors that they might find it advantageous, as respects both quality and price, if, in lieu of the present arrangement of procuring meat by contract, live stock was purchased and slaughtered on the premises, a practice which has proved successful at the Prestwich, Wakefield, and many other county asylums.

Dr. Rogers records a pic-nic to Knowsley Park; nearly 100 of each sex were present. The invitation came from Lord Derby, whose example might well be imitated by other owners of property living in the neighbourhood of our county asylums.

Report of the Committee of Visitors, and Sixteenth Annual Report of the Medical Superintendent of the Asylum for the Insane Poor of the County of Wilts.

The visitors record the continued success of the works for distributing the sewage over the lands of the Asylum. An additional male ward for forty patients has been constructed and furnished for the sum of £2,000.

Dr. Thurnam concludes his sixteenth report with an eloquent tribute to the success of the English non-restraint system.

"In his successive reports, the Medical Superintendent has of late years very generally refrained from any notice of the system pursued in the moral treatment of the patients; in which it has not been found necessary to introduce any material changes. The results of experience have, indeed, justified a reliance on the methods, now—for more than a quarter of a century—carried out, here or elsewhere, under the Medical Superintendent's direction. In the applications of these principles, as will at once be admitted, prudence, vigilance, and foresight are still as much as ever needed, though the fundamental principles themselves remain the same. To one who, like the Medical Superintendent, can recur to the obstacles and discouragements under which the efforts of his venerated friends, Dr. Charlesworth and Dr. Conolly, for the amelioration of the treatment of the insane—and on a smaller scale he may add his own—were prosecuted, it is no slight gratification to find that, in our own country, at least, all this has been entirely changed. In Great Britain and Ireland, and the Colonies, as well as in the United States of America, not a single voice has for long been raised in favour of the harsh and indiscriminating treatment of the insane which prevailed, even in the better managed Asylums, down to the fourth and fifth decenniums of the present century, when it was common to find as many as ten per cent. of the inmates, especially in the female wards, under the habitual control of the strait-waistcoat, or of the more disgusting restraint-chair. Every one will now be found to concur in the assertion of the Harveian Orator for 1866, that 'the best guide to the treatment of lunatics is to be found in the dictates of an enlightened and refined benevolence. And so,' continues Dr. Paget, 'the progress of science, by way of experiment, has led men to rules of practice nearer and nearer to the teaching of Christianity. To my eyes, a "Pauper Lunatic Asylum," such as may now be seen in our English counties, with its pleasant grounds, its airy and cleanly wards, its many comforts, and wise and kindly superintendence, provided for those whose lot it is to bear the double burden of poverty and mental derangement, I say this sight is to me the most blessed manifestation of true civilization which the world can present. This result we owe to the courage and philanthropy of such men as Pinel and Conolly. * * * The spirit which animated these two men is the spirit without which much of the progress of practical medicine would have been impossible. For, however diverse may be the intellectual powers that find their several fit places in the study and practice of medicine, there is *but one right temper* for it, that of benevolence and courage, the same temper that has originated and sustained the highest Christian enterprises.'"

The Twelfth Annual Report of the state of the United Lunatic Asylum for the County and Borough of Nottingham, and the Fifty-Seventh of the Original Institution, formerly the General Lunatic Asylum, 1867.

With reference to the statistics of suicide in the County of Nottingham, Dr. Stiff makes the following remark in his report to the visitors:—

“The Institution was happily free from suicide during the year. Among the general population of the Registration County of Nottingham, about 27 persons, or 8 women and 19 men, voluntarily seek death annually, as will be seen by the returns of the Registrar General.

YEAR.	MALES.	FEMALES.	TOTAL.
1862	20	8	28
1863	20	11	31
1864	18	7	25
1865	19	5	24

“It seems highly probable that more than a third of these unfortunate persons might, if brought under remedial treatment, be found to be curable.”

Littlemore Asylum. Superintendent's Report for 1867, with Statistical Tables.

Mr. Ley here presents his last annual report, taking with him into his retirement the warm esteem of all who, during the twenty years of his official life, have been placed in contact with him. He thus concludes his report:—

“On the occasion of my presenting this, my last annual report, the visitors will, I am sure, allow me to thank them for the kindness and consideration I have uniformly received at their hands. I am fully sensible that any success which I may have achieved in the management of the asylum, has depended on the late and present chairman and vice-chairman, and of the successive visitors who have constituted the committee for so many years. No individual member of that committee can feel more strongly than I feel the value of their united approval or of the confidence they have been wont to repose in their officers.

“There is also due from me a hearty acknowledgment of the ready attention I have always received from those with whom I have had to co-operate; and of the kind spirit of forbearance which has been displayed by the attendants and others in the execution of the onerous duties which devolve upon them.”

The visitors have appointed Mr. Heurtley Sankey, who for fourteen years had fulfilled the office of assistant medical officer, to succeed Mr. Ley. We can wish him no greater success than to gain that reputation and goodwill of the profession which have so largely fallen to the share of his predecessor.

Report of the Committee of Visitors of the Lunatic Asylum for the Borough of Birmingham, as presented to the Town Council, being their Seventeenth Annual Report; together with the Reports of the Medical Superintendent and Chaplain.

Mr. Green adopts the statistical tables of the Medico-Psychological Association, and directs the attention of the visitors to their value, as showing as far as figures can do the practical working of the establishment, and the results which have been obtained, in the seventeen and a half years during which the asylum has been in operation. Mr. Green also records "that the recent appointment of Dr. James Rutherford as assistant medical officer, an able and distinguished man and of high character, augurs well for the future interests of the institution."

The Report of the Committee of Visitors and Medical Superintendent of the Devon County Lunatic Asylum, 1868.

The Asylum continues overcrowded. The Visitors report that the female wards are greatly overcrowded, and that it is necessary they should at once take measures to relieve the pressure. Arrangements appear in progress for the erection of new buildings on the female side; in some degree, however, dependent on the continuance of a contract with the borough of Plymouth.

The farm balance-sheet deserves attention. A profit of £1,000 on sixty-five acres arises, making the most ample allowance for all just charges on the farm. We have seldom seen a more honest and satisfactory farm account—never one showing so profitable a result.

Buckinghamshire. Fifteenth Annual Report on the County Pauper Lunatic Asylum, 1868.

Plans have been completed for the enlargement of each wing of the Asylum by fifty beds, and for a new detached chapel.

The estimate for the enlargement of the wards is £7,000, and £1,500 have been allowed for the chapel.

No steps have yet been taken by the Visitors for the appointment of an Assistant Medical Officer, notwithstanding a mean resident population of 322.

Sixth Annual Report of the Cumberland and Westmorland Lunatic Asylum, 1867.

The visitors continue to suffer from their inability to deal with the sewage question. It will be remembered how one attempt of theirs at sewage irrigation, at the cost of an epidemic of dysentery, led Dr. Clouston to furnish the profession with a masterly investigation of the origin and cause of the mischief. They have since been threatened with an action for nuisance, and have ultimately been compelled to adopt the simple method of sewage irrigation which, at the time of the outbreak of the dysentery, we ventured in this journal to recommend to their notice.

“ Serious complaints having arisen as to the nuisance occasioned by the sewage from the asylum being allowed to run into the brook which passes through the grounds, and which is thereby rendered unfit for the use of cattle, your committee have, after mature deliberation, adopted the only method which appeared to them to hold out any prospect of a satisfactory result. They have determined upon levelling and draining the low fields on the north-west side of the approach to the asylum, and they propose having the deodorized sewage run over the surface of this ground, by which means the noxious parts will be cleared off in passing through the soil to the drains, and the water discharged from them will be sweet and wholesome. This work is now being proceeded with, and the committee fully anticipate that the evil complained of will be remedied.”

In accordance with the recommendation of the Commissioners the visitors have appointed an assistant medical officer, and Dr. Campbell, late of the Durham Asylum, now fills the office. With reference to the vexed question of the increase of mental disease, Dr. Clouston makes some careful calculations leading him to the conclusion that it is not on the increase in the counties of Cumberland and Westmorland.

“ The conclusion is made almost certain that insanity is not on the increase in the two counties, but that the numbers annually sent here have hitherto increased from merely temporary causes, the chief of these being the increased wish to send most cases here early, the increased desire among a socially higher class to have their relatives

sent here, and the tendency which at present prevails to send old persons labouring under temporary excitement with dotage here. All those causes, the statistics I have referred to clearly show. There is another cause which cannot be demonstrated in that way, but which nevertheless exists. When there was no such institution in the county, a lunatic asylum was regarded with all the vague horror that was connected in the popular mind with the cruelty and chains of the old Bedlams. And it is not wonderful that every effort was made by the relatives of the insane to keep them out of such a place. But when the asylum was built and occupied, and open to the inspection of every one who chose to come to see it, and a realising sense of the fact that it was only, after all, a useful institution for the cure of a certain class of complaints to which everybody is liable, was slowly come to by the public, it would only be then that patients would come naturally to the asylum when they became insane, just as they go to the infirmary when they have inflammation of the lungs. Many of the cases sent here now would not have been sent at all in former years."

The Forty-ninth Annual Report of the Visitors of the County Lunatic Asylum, Stafford, for the year ending December 31st, 1867.

Dr. Bower refers in his report to the unfitness of a County Asylum for the cure and treatment of the idiot children of the poor, and he points out how the universal demand for increased accommodation for pauper lunatics might to some extent be obviated by the removal of idiots from the category of lunatics. The following remarks on this subject are important :—

"A considerable proportion of idiot children of both sexes have been admitted during the year; a fact to be regretted, as curative treatment is of no avail, and as this class might be adequately taken care of at a less cost than in an Asylum, if proper provision were made elsewhere for them.

"In an Asylum where, from the large numbers resident, space is limited, it is not possible to devote separate wards to children of tender age alone; and it is evident that the association of these young children with adults who are frequently violent, and generally of low habits, cannot conduce to promote an improved state of behaviour, or to correct the vicious propensities which many of them have acquired before admission.

"To meet the difficulty of this undesirable association, the erection of separate buildings for the reception of idiots, or the opening of wards in workhouses, under adequate management, and devoted to the residence and treatment of this class alone, must be adopted. A better arrangement of this class could thus be obtained, and the charges now necessarily made to the different unions for the maintenance of their lunatics, would have a tendency to diminish."

The Third Annual Report of the Staffordshire Asylum, situate at Burnt-wood, near Lichfield, for the year ending December, 1867.

The difficulties which have existed in the supply of water have been happily overcome.

The County Surveyor reports the completion of the heading from the capstan to the engine well, and the very satisfactory increase of the water supply.

After the completion of the heading, it was allowed to fill, which it did in three days. When full, the engines were set to work, and in $44\frac{1}{2}$ hours pumped out 248,620 gallons, or something like 135,000 gallons per day of 24 hours.

Dr. Davis reports an entire freedom from all contagious diseases, and that no casualties have occurred during the year.

Third Annual Report of the Inverness Lunatic Asylum, May, 1867.

On a splendid site overlooking the city of Inverness and Cromarty Firth, stands the Inverness Asylum, which is decidedly the best of those erected under the Scotch Lunacy Acts.

An excellent detached house has been built for the Medical Superintendent, and the treatment is carried out by Dr. Aitken on the most advanced principles. It is to be regretted that Dr. Aitken should not have introduced the tables of the Medico-Psychological Association into his able report.

Dr. Aitken's remarks on Moral Insanity are deserving of quotation:—

“As pointed out, however, in last report, it is an error to consider insanity as merely an intellectual disease, and there seems now little reason to doubt that our higher emotions, as well as those of an opposite nature, are as much under the influence of bodily conditions, and from their extreme mobility it can be easily understood how they may be even more so than the higher mental faculties. It is, in fact, more than probable that the intellect is secondarily involved, and just as various causes acting upon one portion of the nervous system may give rise to convulsions, epilepsy, and allied diseases, so may the higher nervous centres, when affected by injudicious training, self-indulgence, hereditary taint, and various functional disorders or actual physical changes, originate impulses of simple extravagance on the one hand; or those of a degrading nature, violation of all laws, civil and moral—it may even be acts involving the welfare or life of the individual—upon the other. The difficulty, indeed, in determining, in

the lower forms of affective or emotional insanity, where responsibility ends and irresponsibility begins, has, of late years, assumed a character of great importance in medico-legal investigations, and experts have far too frequently had their opinions unjustly questioned. But this appears to be simply from the opposite points of view taken by the two professions who have to deal with such questions. In the one, mind—or the various faculties, which, in combination, are so named—is viewed too much in the abstract, and apart from bodily conditions; whilst those who have to deal practically with insanity, and who daily have evidence presented to them of the influence of variations from health, become more and more impressed how slight, under certain circumstances, may be the conditions which lead to morbid mental manifestations. If, as was very recently reported, the irritation caused by a fragment of straw which had forced itself into the sensitive part concealed beneath the nail of one of the fingers, was capable of giving rise to acute maniacal excitement, is it not still more probable that diseased conditions, affecting directly the nervous centres, through which sensibility and consciousness manifest themselves, and entering, it may be, into their very constitution, may give rise, according to the extent of their affection, to forms of mental disease, varying in degree according to their intensity? To arrive at just conclusions, in cases where moral insanity is suspected, it is above all necessary to have satisfactory information regarding the daily life of the individual, and to compare this with his bearing at the time of the criminal act he may be accused of. It will also be especially necessary to ascertain if hereditary tendency exists, if any taint or vicious habit has been recently acquired, and the individual must be considered in relation to his family and social position. Such facts as these ought, at least, to have as much authority as circumstantial evidence, on which decisions of great importance frequently depend. But in the investigations experts are called upon to make, such considerations are allowed to have little, if any weight; and they are asked to decide upon the condition of the individual whose responsibility is questioned, under circumstances in which, with more than the acuteness of the sane mind, he stands upon his guard, removed from all the sources of irritation best calculated to exhibit the inherent weakness of his mental constitution. The few examinations they are also able to make do not allow time for the establishment of familiar intercourse with the accused, and it is well known that familiarity with surrounding circumstances sometimes leads to the manifestation of peculiarities which might otherwise have remained concealed. To deal, then, satisfactorily with those suffering from such low forms of mental disease, not only should due weight be given to the indications brought forward, but far more extended means of observation should be enjoyed by those, an expression of whose opinion is demanded; but it is still more necessary, if true views are to be held in regard to these unfortunates—and who will say they are not the most unfortunate of mankind?—they must be

founded not upon mere abstract views of our mental constitution, but take their origin in a right understanding of those conditions affecting the laws of organisation and degeneracy, having peculiar reference to the pathology of mind."

Fifteenth Annual Report of the Killarney District Lunatic Asylum, for the year 1867.

Rejoicing in a softer beauty than the Inverness Asylum, stands that at Killarney, overlooking the beautiful lake. It is a princely structure, much more finished outside and inside than the average of the English County Asylums. Dr. Lawlor discusses the question of the probable enlargement of the asylum, where, curiously enough, the male patients are double the number of the females. Dr. Lawlor estimates £10,000 as required for an increase of 100 beds. He thus argues against the indiscriminate sending in Ireland of all lunatics to the asylum:—

"The question naturally presents itself—is it not more advisable, with a view both to the interest of the ratepayers and to the comfort of the patients, to take off the pressure from the asylum by providing the necessary accommodation for the quiet demented and idiotic in the workhouses, than to send all classes of the lunatic poor into the asylum, thus enforcing an increased taxation to a large amount? The simplest organization, and a very small expenditure, would suffice to carry out this plan. The first essential would be that paid and trained attendants should be provided in the workhouse, to take charge of this class—an improvement which is already forcing itself upon the Poor Law administrators, irrespective of the question of lunatic inmates—and a better scale of dietary. With such an arrangement as this existing, out of the male patients at the present time crowded into this asylum, there are about 40 demented and idiotic paupers who could be transferred to the workhouse. Amongst this large class of incurable demented and idiotic lunatics, there are some who would occasionally require treatment in an asylum, though for long intervals they continue perfectly quiet and tractable. There could be no difficulty in receiving such cases into the asylum when requisite, and sending others in their place to the workhouse.

"I have ventured to consider this question in some detail, because I am convinced, in the first place, that a considerable amount of increased taxation can be avoided, if the workhouse authorities would consent to assist the asylum, and if the justices would exercise with caution and moderation the power which the Act 30 and 31 Vic. places in their hands; and secondly, that if fresh expenditure be forced upon the county, it will be essential to take the matter up in good time, so as to

give full consideration to all plans and estimates, and to see if some more economical plan for providing for the accommodation of the insane, than that hitherto adopted in this country, cannot be produced by the genius of the architects."

Annual Report of the Committee of Visitors of the County of Warwick Pauper Lunatic Asylum, for the year 1867.

Dr. Parsey thus remarks on the advantages of small, as compared with large public asylums. Of course a good deal may be said on the other side also, but the unanswerable logic of facts may suffice. All the English county asylums must ultimately become large asylums:—

"A change in the working staff of the attendants has this autumn been made by the appointment of a head attendant for the female department. For many years I did not feel the want of such an officer; and for some time after the special usefulness of one began to force itself upon me, was unwilling to ask your Committee to sanction the change; for, so long as an asylum is of a size to be capable of unaided supervision by the chief officers, I believe that it affords by far the greatest facilities for promoting the efficient treatment and personal comfort for the inmates; and it is only because this Asylum has of late years been growing beyond such size that I submitted the request to you. According to my observation and experience, the distinctive characteristics and leading advantages of small over large Asylums consist in the facility they afford for the chief officers personally identifying themselves with the habits, wants, and peculiarities of the patients, and exhibiting an interest in many of those minor details, which, in the aggregate, are so essential to their successful moral, as well as special treatment. But when they become massed in large numbers, under a routine discipline carried out by a complicated staff of officials, each of these latter may conscientiously perform the duties entrusted to him, but there his interest usually ends; or, if it does not, he finds that he is trenching on the supposed duties of some other official, which is but too apt to lead to disagreement and discord, all reacting to the disadvantage or discomfort of their charges; the domestic element is, with increase of size, more and more eliminated as a prime feature of management; and the establishment becomes too much of a routine worked by a complicated machinery always more or less out of gear; the result being far from satisfactory, if the individual care, comfort, and mental improvement of the patients are to be taken as the standard of efficiency."

Thirteenth Annual Report of the Suffolk Lunatic Asylum, December, 1867.

Dr. Kirkman continues with unabated zeal to further improvements in the asylum, which for thirty years he has superintended:—

“The past year has been a year of industry; much of the work left unfinished last year has been completed. The whole of the outside of the house has been painted. The stone floors which were being removed in the bed rooms on the female side have been taken up, and each room boarded, and made very comfortable. All the forms have had backs added to them; and hand rails, at the Commissioners' request, have been put to some of the stairs. The high mound in the airing court at the back of the building has been lowered, and the space converted into an ornamental garden; the cultivation gives cheerful employment; and, as affording anticipative gratification, tends to encourage a spirit of emulation. This alteration has very greatly improved the dining room and bed rooms in the lower storey; and when seats (as proposed) are placed round the trees, a better protection will be obtained than can be got by inelegant and artificial sun-shades. The flag-stones taken up from the bed rooms have made a dry and a comfortable pathway to the large recreation room. Two pairs of large sash windows have been substituted for the narrow iron ones in the room occupied by the more disturbing patients, and an additional archway made into it. The whole of this lower storey is now equal in comfort to any part of the house.”

Report of the Committee of Visitors of the County Lunatic Asylum at Prestwich, to the Adjourned Annual Session, held at Preston, on Friday, the 27th day of December, 1867.

The committee report that they have, unfortunately, been unable to carry out the arrangement with the Guardians of the Bolton Union, alluded to in the annual report of last year, for the reception from this asylum into the workhouse of that Union of a limited number of chronic and harmless patients, so as to afford room in the asylum for more hopeful and pressing cases. This arrangement was originally made with the sanction of the Commissioners in Lunacy, but could not be acted upon in consequence of a legal difficulty as to the construction of the eighth clause of “The Lunacy Acts Amendment Act, 1862.” The opinion of the law officers of the crown has been taken, and it is advised that further legislation is desirable in order to define more clearly the position of visitors, guardians, and others with respect to chronic lunatics removed to workhouses under the provisions of that Act. The Poor Law Board attempted to meet the difficulty by introducing a clause into the Poor Law Amendment Act of last Session, but threatened opposition led to the withdrawal of the clause at the last moment, and the expected relief was not obtained.

Mr. Holland refers in his report to the use of dry earth-closets:—

"The dry earth-closets, which had been in use for several months at the New Hospital, proved in every respect so satisfactory that I was induced to solicit your sanction to carry out the system more extensively in some of the older buildings. By your permission the water-closets in No. 6 men's ward (a building holding nearly 300 patients) have been converted into earth-closets, and these have now been in use for several weeks. I entertain no doubt whatever of the benefits arising from the alteration, and as the expense is so trifling, venture to express a hope that before the expiration of the present year the whole asylum may be subjected to the same beneficial and economical change."

General Report of the Royal Hospitals of Bridewell and Bethlem, and of King Edward's Schools, for the year ending 31st December, 1867.

Dr. Rhys Williams reports an increase in the annual mortality, owing, he believes, to the relaxation of the rules of the hospital in regard to the admission of patients who are suffering from any form of paralysis. Out of 29 deaths, 11 are attributed to general paralysis. He writes:—

"This must have a marked effect on the statistics; but at the same time the usefulness of the Institution is greatly increased, and its charity extended to a class most requiring the care and comforts of a hospital. In 11 cases death took place within a month of admission, all when brought to the hospital being in very feeble health, and far advanced in physical disease. The rule regarding the admission of patients whose condition threatens the speedy dissolution of life, can hardly ever be acted upon, as in most cases it would be unsafe to risk a return journey home, and even the possible chance of recovery would thus be destroyed. In many instances the patients were carried to bed, never to leave it again, only being kept alive for a short time through unremitting care and attention."

Permission to send those patients to Brighton who were likely to be benefited by change of air and scene, was again granted this year, with very satisfactory results. Dr. Williams was enabled to send 30 females, and 20 males, for periods varying from a fortnight to three weeks. In addition to the great good done to the patients, these visits were of marked service to the attendants, being an agreeable, and in some cases necessary change from their ordinary daily routine work.

The elaborate tables appended to this report might, with very little trouble, be adapted to the forms of the Medico-Psychological Association.

The Twenty-Third Report of the Committee of Visitors of the County Lunatic Asylum at Hanwell, January Quarter Sessions, 1868.

The Committee have been occupied during the past year in a revision of the Diet Table. After much consideration and consultation with the Medical Officers of the Asylum, the Committee arrived at the conclusion that it would be for the advantage and comfort of the patients that the ordinary Diet Table should be reformed in some slight degree, leaving the extra and sick diet, as heretofore, entirely in the hands of the Medical Superintendents. The changes which they have directed to be made are not considerable in themselves, and do not lead to any considerable increase of expenditure, while they will, in the opinion of the Committee and of the Medical Officers, provide a diet acceptable in every respect, and be, upon the whole, more conducive to the comfort and health of the patients. The principal addition to the Diet Table has been made by allowing a small supply of butter to the male side, and by granting a small increase to the females, and the principal alteration is the substitution on the female side of the Asylum of tea for cocoa.

This report furnishes another illustration of the expensive management carried on in the large metropolitan asylums. The rate at Hanwell, 10s. 9½d., is 1s. a week above the average of the County Asylums in the Southern District of England. The Committee report that—

“The considerable increase in the price of almost all articles of consumption, together with the alteration in the Diet Table—small in itself, if it stood alone—has rendered it necessary to raise the rate of maintenance from 10s. 6d. to 10s. 9½d. per week. So long as the Court and the parishes are satisfied that the amount required to defray the expenditure is disbursed for the comfort and proper care of the pauper lunatic, the Committee is convinced that the increased rate will be cheerfully paid by the several parishes of the county.”

The Farm and Garden Report is very interesting. The 52 acres of land yield a profit of £1494, not valuing the patients' labour, which is, indeed, worth very little as regards profit in any asylum when the cost of its supervision is taken into consideration. The sole value of lunatic labour is to the lunatic himself. The Farm Committee report most favourably of the continued success of the use of the sewage on the farm and garden.

"The root and grass crops still continue to derive great benefit from the free use of sewage. The Italian rye-grass sown in the spring of the present year was cut five times from the 29th May to the 20th October, with the following result :—

1st Cut	.	.	.	.	.	16 Tons per Acre.
2nd "	.	.	.	.	.	13 "
3rd "	.	.	.	.	.	12 "
4th "	.	.	.	.	.	11 "
5th "	.	.	.	.	.	8 "
Total						60

The total produce from $2\frac{1}{2}$ acres was 150 tons, at 12s. per ton—£90.

The permanent grass in Old Field, which was laid down in March, 1866, has been cut four times during the past year, the first in April and the last in September :—

1st Cut	.	.	.	.	.	16 Tons per Acre.
2nd "	.	.	.	.	.	12 "
3rd "	.	.	.	.	.	12 "
4th "	.	.	.	.	.	8 "
Total						48

The total produce from 4 acres was 192 tons, at 15s. per ton—£144.

The crop of worzel was very fine—from $2\frac{1}{2}$ acres the produce was 90 tons; they were all stacked in good condition and free from frost.

About 200 tons of sewage refuse (mixed with farm manure, ashes, &c.) have been put on the New Field prior to cropping for 1868."

Twentieth Annual Report of the Somerset County Pauper Lunatic Asylum, from the 1st of January to the end of the year. 1867.

Dr. Boyd's retirement is thus chronicled in this twentieth report of the Somerset Asylum :—

"The committee have to report a resolution adopted unanimously at the meeting in November (11 members of the committee being present), granting, under the provisions of the Act of Parliament, a retiring pension of £450 to Dr. Boyd as the superintendent of the county asylum, to which they ask the assent of the Court. Dr. Boyd was appointed at Midsummer, 1847, and came into residence in December to prepare for the opening of the asylum on the 1st of March,

1848. The committee will part with him under the recollection of 20 years of uninterrupted harmony and entire confidence, during which they have observed his thoughtful care of the patients, and for the improvement and enlargement of the asylum, whereby the county property has been much increased in value, while the expenditure has been kept below the average of other asylums."

Dr. Boyd's report is, as usual, most ample and elaborate. He takes a survey in Part I. of the work undertaken at the asylum during the twenty years of his official connection with it. The second part contains an elaborate medical report and obituary. We hope Dr. Boyd may use his well-earned leisure to digest into another paper for this Journal the valuable medical facts and figures lying scattered and unknown in his recent reports. The Visitors have most properly appointed Dr. Madden Medlicott, many years assistant medical officer, to the office of Superintendent.

Newcastle-upon-Tyne Borough Pauper Lunatic Asylum. Third Annual Report, 1867.

In reference to the new Asylum at Coxlodge, the Committee report that considerable progress has been made during the past year, and they confidently hope that the building will be completed and ready for the reception of the patients before the close of the present year.

The Asylum, under Dr. Hugh Grainger Stewart, the Medical Superintendent, and the officers under him, has been conducted to the satisfaction of the Committee: the house and all the apartments have invariably been found clean and orderly.

C. L. R.

Chapters on Man. With an Outline of a Science of Comparative Psychology. By C. STANILAND WAKE, Fellow of the Anthropological Society. London, 1868.

THIS book supplies rather a favourable specimen of the sort of science with which, with a few distinguished exceptions, the fellows of the Anthropological Society have hitherto favoured the public. A society which has been conducted in a somewhat sensational way, has awakened popular attention to certain important but difficult questions in regard to man; questions, which, though demanding the deepest study and

most mature reflection, have too often been treated in a superficial, incomplete, dogmatic and ill-judged manner. Doubtless as the society grows in years and in discretion, and as those who have joined it and taken part in its proceedings from motives rather personal than scientific give place to real workers, it will do much useful work. Up to the present period of its existence, however, its chief fruits have been some extremely ill-executed translations of foreign works, and some very indifferent contributions to the most difficult of all studies, by writers whose treatment of their subject has shown that they were anxious to teach before they had well begun to learn.

Mr. Wake's book deals professedly with several important subjects, the investigation of one of which might be thought almost sufficient to occupy a man's energies for a lifetime. There is a chapter on "Intelligence and Nervous Development," which, however, consists of only seven or eight short pages, and contains nothing about nervous development; another is on the "Origin of Human Language," made up of quotations from Prof. Max Müller and Mr. Farrar, who appear to be the authors on this subject to whom Mr. Wake owes all he knows about it; another on "Moral Responsibility and Immortality," which is a compost of Lord Brougham, Sir B. Brodie, Mr. Leo Grindon, and Dr. Adam Clarke; another on the "Species and Varieties of Man," which are quickly despatched by help of Prof. Waitz's introduction to "Anthropology;" another on "Civilization and Race;" another on the "Antiquity of Man;" another on "Matter and Spirit;" and there are other equally unsatisfactory chapters which settle other equally vast and abstruse subjects. Considering that the book is a small octavo, of little more than 300 pages, it seems a wonder how such great subjects can be got into such little room.

Read a chapter, and the wonder ceases. No subject is treated systematically, or even seriously entered upon; it is simply skimmed in a most superficial, discursive, and incomplete fashion. In fact, if we might venture a guess, we should say that the author had read one popular author, or two authors, or sometimes three, on a subject, that he had marked passages which he approved or which excited critical reflections in his mind, and that he had finally thrown together the quotations and the reflections, without any particular method, and had in that way manufactured his chapters. It is just one of those books which a person is disposed to

write who is beginning to learn a subject in which he is interested, but which, ten years afterwards, when he has really mastered what is known upon it, and has appreciated the difficulties of it, he is rather glad he did not write. The time will probably come when Mr. Wake will wish that he had kept his materials by him in a common-place book until his studies had been more complete, and his knowledge had had time to ripen.

Although we cannot be at the pains to discuss in detail the opinions broached on such a variety of topics, and have not that depth of knowledge of many of them which would make such a discussion profitable to our readers, it is only right to add that Mr. Wake avoids, in the treatment of his subjects, the most offensive faults of some of those who have given a bad tone to the Anthropological Society. He is neither ignorantly self-sufficient, nor vulgar, nor flippant; and though he cannot justly escape the charge of meddling with matters too high at present for his attainments, it must be conceded that he has written in good taste, that his reflections are suggestive, and that his book is not unsuited to attract popular attention to the questions which it is concerned with, if not to be popularly instructive.

1. *Archiv für Psychiatrie und Nervenkrankheiten*, Band I., Heft. 1. 2.
2. *Allgemeine Zeitschrift für Psychiatrie*, Band XXIV.
3. *Fortschritt?—Rückschritt! Reform Ideen des HERRN GEH. RATHES*, PROFESSOR DR. GRIESINGER, in Berlin, beleuchtet von DR. HEINRICH LAEHR, Redacteur der Allg. Zeit. f. Psych.
- Progress?—Retrogression! PROFESSOR GRIESINGER'S Views of Reform, examined by DR. HEINRICH LAEHR. Editor of the Zeitschrift für Psychiatrie.*
4. *Zur Kenntniss der heutigen Psychiatrie in Deutschland. Eine Streitschrift gegen die Broschüre. "Fortschritt?—Rückschritt!"* von DR. W. GRIESINGER.
- On the State of Contemporaneous Psychiatry in Germany. A Reply to the Pamphlet entitled "Progress?—Retrogression!"* By DR. GRIESINGER.

5. *Ueber einen Artikel "Aus der Provinz," in der Allgemeinen Zeitschrift für Psychiatrie.* Von Dr. W. GRIESINGER.
On an article entitled "From the Provinces," in the Allg. Zeit. f. Psych. By Dr. W. GRIESINGER.
6. *Der Umschwung in der Psychiatrie, nach der Vorworte zu Griesinger's Archiv f. Psych. und Nerv.* Von Dr. BROSIUS in Bendorf.
The Revolution in Psychiatrie, according to the preface to Griesinger's Archiv for Psych. und Nerv. By Dr. BROSIUS, of Bendorf.

In our last number we gave the translation of an article by Professor Griesinger, of Berlin, on "The Care and Treatment of the Insane in Germany." The opinions expressed in that article differ materially in many points from those which have influenced recent legislation both in Germany and other countries; and the author only gave utterance to what is almost self-evident, when he stated that he expected his views to "encounter opposition among contemporary alienists." Those who have spent the greater part of a lifetime in elaborating the present system justly regard it with some pleasure and even pride; and it is natural that they should not receive with great cordiality recommendations which savour even more of revolution than reform. Many will probably see in the views of the Berlin professor an attack on some principles of treatment or administration which they have regarded as of the first importance and value in the present arrangements, and will hasten to offer vigorous opposition to the proposed changes. The pamphlet by Dr. Laehr, mentioned at the head of this notice, and the article "Aus der Provinz," published in the journal of which he is editor, may be regarded as the first of a series of attacks which will probably be made; and the tone of both, as well as of the replies of Professor Griesinger, show that the points in dispute are regarded as vital by both parties.

Before the controversy can be properly understood by members of the profession in this country, it is necessary that they should obtain some idea of the comparative condition of lunacy affairs in Germany and Britain. Natives of both are too apt to assume without due enquiry that the system pursued in their own country is the best, and indeed they often entertain the most absurd ideas of what is found in foreign lands. Dr. Laehr's pamphlet itself affords more than one

instance of such a mistake, and at the same time exhibits incidentally, but not obscurely, the different points of view from which some questions are regarded by him and by British alienists.

In regard to the question of non-restraint, the following may be taken as an illustration :—

“There is a patient in the asylum who, in consequence of a morbid impulse, or of overpowering hallucinations, breaks the windows, tears the clothes and the bedding, even when made of the strongest material ; throws the furniture at the face of the attendant or against the wall. Is the parish, at whose charge he is maintained, to pay double or treble the rate of board for him, instead of spreading the benefaction over several persons, merely for the sake of upholding the principle, and enabling the asylum to proclaim that it is administered without the use of mechanical restraint ? * * * Not as if it were impossible to avoid restraint ! Not only in the English asylums (though even in those where it is most loudly asserted that this principle is adopted, the safety-jacket has been found by trustworthy *confrères* in full play ; of course without the knowledge of the medical superintendents) is non-restraint carried out, but also in German asylums in an experimental manner.”

The author of this implies that the professed disuse of mechanical restraint in English asylums is delusion or deceit ; and in so doing he only expresses the opinion which has been freely expressed to ourselves by many of his countrymen—“Das no-restraint in England ist ein ‘humbug,’ nicht wahr ?” said the excellent superintending physician of one of the best German asylums to us on one occasion. And he gave unmistakable proof that he considered it humbug in Germany, for we had that very minute passed a row of seven of his patients cased in camisoles and strapped firmly to their beds. Dr. Laehr makes himself merry concerning the reform which Conolly, Hill, and others introduced into our own system ; but it must be evident to any of our English readers that he not only requires to learn how restraint can with benefit be excluded from our treatment, but he also fails to appreciate the genius of non-restraint—how the banishment of the camisole necessitates a new starting point for all our ideas of treatment, and infuses a new spirit into almost every detail of management.

In this we believe the greatest difference between German psychiatry and our own is to be found, though the former is gradually losing this distinctive feature. In a few asylums

non-restraint is actually, and more than experimentally, carried out. In Hamburg it has prevailed for nearly five years, and in Berlin it is now rigidly enforced.

The next most evident difference between the two modes of administration is in the number of the medical staff with which each asylum is furnished. In the beautiful asylum at Neustadt Eberswald, not far from Berlin, where about 400 patients are accommodated, there are no less than three assistant physicians. In England, unfortunately, it is not very rare to find nearly twice that number of patients, with only one assistant medical officer. If we had cause to congratulate ourselves in regard to the previously mentioned feature in our system, we must do the opposite here. The numerous details of ordinary administration in an asylum of ordinary size engross most of the time of the superintendent, and the assistant physician is left frequently to take almost the entire direct charge of the medical treatment, a task which, from a scientific point of view, he cannot possibly have sufficient time to overtake. One practical effect of the difference is to be found in the much greater number of careful clinical and pathological memoirs which are contributed from asylums to the medical literature of Germany than to our own.

In regard to the asylums themselves, their architecture and internal conveniences, though Dr. Laehr thinks that the political and social circumstances of the two nations are so completely different that the asylums must also be very unlike, we believe that a good asylum there very much resembles a good one here. At least, we should not consider that much alteration would be necessary in the buildings either at Hamburg or Neustadt to suit them to the requirements of this country.

In his reply to Professor Griesinger, Dr. Laehr disputes most of his propositions, and introduces perhaps naturally, but unnecessarily and improperly, a personal attack on his opponent. We are sorry that Professor Griesinger has thought it necessary to resort to the same weapons in his counter-blast. To Dr. Laehr, however, the blame of introducing this element must be attributed; and we do not think he has much reason to congratulate himself on the result.

The questions in dispute are, whether the plan of having town or clinical asylums, and the cottage or family system, in addition to the present establishments, is partly or entirely a new proposal, and if so, whether what is new would be beneficial or otherwise. The former of these questions would

appear to be answered most satisfactorily by the fact that so fierce an opposition has been excited. "But," asks Dr. Laehr, "what are the town asylums but imitations of the old madhouses? And have we not had clinical instruction in asylums in all parts of Germany long before Dr. Griesinger was heard of?" Such questions, however, show that he misapprehends the nature of the proposals. In the lunatic section of the Charité at Berlin may be seen in actual operation the kind of clinical asylum which Dr. Griesinger suggests—in so far, at least, as an old unsuitable building can be made to illustrate it. What resemblance there is between these wards as at present administered and an old-fashioned madhouse, we are at a loss to perceive. We were fortunate enough to attend during several weeks of last year the clinical lectures and demonstrations which were given in that hospital; and though the cases were only detained there when recent, or presenting acute morbid conditions, we were agreeably surprised to find the general demeanour of the patients rather tranquil, and comparing even favourably with that of the inmates of an ordinary asylum; and this result was attained in spite of—probably to some extent, rather, as the result of—the absence of mechanical restraint, and also of seclusion as it is ordinarily carried out. We had not an opportunity of becoming acquainted with every detail in the management, nor would we desire exactly to imitate everything we saw. But as regards the question of whether acute cases of insanity can be congregated without injury in a building differing but slightly from an ordinary hospital, it may be considered as finally settled—*solvitur ambulando*. The addition at Berlin of a few more outlets for mental activity by means of occupation and amusement, would, we think, be an improvement, notwithstanding that the residence of the patients is only temporary. Still the impression derived from a visit is very different from what we received a few years previously in the same hospital, when we saw, among other illustrations of treatment, a restless female strapped by an anklet to a pillar in the centre of a ward.

The propriety of introducing the clinical teaching of psychiatry into every medical curriculum, we think, admits of no doubt. Many attempts have been made to carry out this project. Last century, Beattie tried at St. Luke's to teach what of rational treatment was then known; Pinel gave lectures in Paris at the beginning of this century; and Horn, at Berlin, soon followed his example. Several courses of

lectures are now given both on the Continent and in this country; but the distinctive feature of Professor Griesinger's proposal is that the instruction is intended to be given in an hospital, in the establishment of which the clinical teaching of psychiatry is regarded as an important object. Hence it is to contain acute cases; hence it is to be placed in connection with, or in the neighbourhood of, a general hospital; and hence the medical charge is to be confided to a physician who shall also have wards in which diseases of the nervous system, uncomplicated with mental symptoms, can be illustrated. For the general medical practitioner, it is of comparatively little moment whether he be acquainted with the treatment of chronic lunatics in asylums. Such chronic cases as he meets with require little or no medical attention; but he has frequently great anxiety and no little difficulty in the treatment of acute insanity. It is scarcely to be hoped that any arrangement would be successful in supplying suitable instruction, unless it is to be given in the immediate neighbourhood of the other branches of the school. And we believe that the comparative failure of most previous attempts has arisen mainly from this defect. If this be correct it is well worthy of consideration by those who are re-arranging and re-building clinical hospitals, whether wards should not be set apart for the treatment of insanity. That there is no administrative impossibility we have seen; any legal difficulties ought not to be insurmountable.

The question of cottage or family treatment does not require to be discussed here. The arguments on both sides have frequently been brought forward in the pages of this journal; and Dr. Laehr's contribution to the controversy does not bring forward any new arguments which require to be considered. The most powerful argument for or against this or any other part of the plan advocated by Professor Griesinger will be afforded by the success or non-success of the attempt to carry them into practice. We understand that one of the German governments has recently adopted the plan; it is, therefore, probable that its advantages or disadvantages will soon be practically illustrated.

The pamphlet by Dr. Brosius, the learned editor of the "*Irrenfreund*," is devoted principally to the discussion of the question whether Dr. Griesinger is justified in stating that the recognition of insanity as a disease of the brain and nervous system, is a new phase in its history. Hippocrates, Galen, and Caelius Aurelianus are referred to among the

ancients, and Pinel, Esquirol, and many others, including Griesinger himself, among the moderns, as having recognised this doctrine; and it is held almost universally, says Dr. Brosius, by alienists of the present day. With the question of how far Dr. Griesinger imputes blame to contemporary alienists for the present position of the science, or how far such blame would be justifiable, we will not entangle ourselves. Dr. Brosius considers the tone of the paper unfair, both to the medical profession at large, and specially to its alienist section. But we think that he fails to take up the question on the main issue. If Dr. Griesinger is right, then some change is necessary in the manner of our studying insanity. If Dr. Brosius is right, no change is necessary. I desire you to walk in this new path, says one. We have been walking in it since the days of Hippocrates, says the other.

Esquirol is cited by Brosius as having held that insanity is "an affection of the brain, generally chronic, and accompanied by disorders of sensibility, intelligence and will." But this recognition of its pathological nature did not prevent Esquirol from discussing it practically, as quite a separate kind of study from that of all other affections of the brain and nervous system. Did he not talk of "la folie," as a specially distinct condition? Did he not talk of "le fous" as a special class of people? And in the classification of the various "forms of insanity," is it not evident that he never dreamed of applying principles which are adopted with other diseases of the nervous system? Lypemania, monomania, mania, dementia, and imbecility, represent metaphysical abstractions, by which, fortunately, several affections are suitably grouped together, but which also associate under the same name many others which, from a neuro-pathological point of view, are essentially different. This classification by Esquirol has been useful, and was perhaps the best possible, with the data from which he had to work. But like the equally useful classification by Linnaeus, which has been so valuable an aid in botanical science, it has served its time, and a more scientific division into natural orders must be attempted. Something has been done by later writers towards effecting this object. Morel, Skae, and others have suggested systems more in accordance with the neuro-pathological doctrine. But the special position which Griesinger upholds is that insanity is not a separate subject at all, that diseases of the nervous system may be complicated with mental

symptoms, or may not be so complicated; but that the student ought not to have read about a disease *when so complicated* in a special book and treated from a special point of view, and to seek information about the same disease, *when uncomplicated*, in a different book and where it is treated from a different point of view. It is not merely that insanity be acknowledged to be the result of disease of the brain and nervous system; but that it be studied as a symptom of such disease, and as a part of the study of each disease of the nervous system in which it occurs, and further that these diseases ought not to be disjoined from the allied affections in which mental symptoms do not appear. In the clinique at Berlin the students are shown cases of such complicated and uncomplicated disease, the wards for the treatment of each being both under Professor Griesinger's charge. In one may be seen a case of tabes dorsalis, in which mental symptoms are manifested; in the other may be found a case of the same disease in which mental symptoms have not appeared as yet; and an opportunity is afforded to the Professor to point out the grounds for anticipating the occurrence or non-occurrence of such symptoms after the disease has made further progress. It is as if in another part of the hospital a patient suffering from thoracic aneurism, uncomplicated with dyspnoea, should be shown to the class, and another similar case should also be shown in which the breathing was affected. Seen from a pathological point of view, a book on "mental diseases" is no more justifiable than would be a book on "breathing diseases;" and the same class of obstruction to the advancement of our scientific knowledge of disease might in each case be expected from adopting such a course.

That special arrangements are generally necessary for the treatment of diseases complicated with mental symptoms is an incontrovertible fact, though the tendency is every year more and more towards removing those special characteristics which distinguish asylums from hospitals. This fact, however, has produced that separation from asylums, and consequently of asylum practice from that of ordinary hospitals. Some physicians, indeed, as Dr. Brosius remarks, engage in general as well as asylum practice; but the opposite is the rule, and however much it may be maintained by alienists that they are not specialists, or do not regard the treatment of their patients from a specialist point of view, they are generally forced into it in practice; and the special study of "mental diseases" is encouraged.

We have got past the stage when insane persons were supposed to be possessed of the devil; but there still lingers about the population and even the professional mind an idea that "lunatics" are more than merely suffering from disease. To root out the last vestige of this and to bring the subject completely within the circles of ordinary medical thought, we understand to be the object of Professor Griesinger.

J. S.

Recherches sur le Systeme Nerveux Cérébro-Spinal; sa structure, ses fonctions, ses maladies; par J. LUYs, Médecin des hôpitaux de Paris. Paris: Bailliére, 1865.

This work has been so well received in France, especially by those engaged in the treatment of mental and nervous diseases, that it comes to us with a sort of authority, as representing the position of science there on the subjects with which it deals. It is, indeed, a fair sample of the good and bad qualities which, as a rule, characterize the works of our neighbours across the Channel. Although treating of very intricate questions, the author has been so clear in his definitions and language, that he never leaves us in any doubt of his meaning: he has cooked our scientific meal for us, and does not leave us to prepare it ourselves, as is too often the wont of Germans and Englishmen. He has also shown considerable diligence in collecting facts, and great ingenuity in suggesting hypotheses for connecting them. On the other hand, he exhibits the national tendency to overstrain theories, and to form them upon insufficient evidence; and truth compels us to add, that his work displays a fault from which the French schools of medicine are now generally free, viz.: an almost complete neglect of the medical literature of every country save his own.

In spite of these defects, which must inevitably prejudice a foreigner against the book, it contains a great deal of matter, which, we believe, will prove both novel and interesting to our readers. Of course the space at our command will not enable us to give any adequate idea of a work of some size and much solidity; we can only aim at extracting some of the most prominent facts and opinions contained in it.

The leading anatomical statement is, that the optic thalamus and corpus striatum are the central points of the whole nervous system, to which converge, from above, fibres

from the cerebral convolutions and cerebellum : from below, those from the rest of the body.

In speaking of the *spinal cord*, the author is remarkable for the importance which he attaches to the central gray matter. He looks upon this as the origin of vasomotor influence, and attributes to it such relations of sympathy as exist between the uterus and mammæ, the bilateral occurrence of many diseases, the suddenly fatal effect of some poisons, &c.

Too little is known of spinal diseases to enable us to produce much direct pathological evidence of the trophic influence of this part; but from a case of M. Hutin's, it would appear that atrophy of the lower limbs follows upon its complete destruction in the lumbar region. Luys explains the action of revulsives, by supposing that the irritation produced by them is conducted to this central gray substance, thus diverting that vasomotor influence which was being employed for ill in some internal disease, into the production of an external and temporary hyperæmia; in the same way he would look upon this part of the cord as the connecting link between the primary disease and local anæmia of the cord, in functional paraplegiæ originating in genito-urinary or rectal disorder.

Painful impressions appear to be conducted up to the encephalon by a special set of "doloriferous" fibres, which, according to Chauveau, do not enter the gray matter at all, but run along the surface of the cord just behind the lateral columns. Diseases of the vertebræ, or spinal membranes, probably cause hyperæsthesia, violent pain, or analgesia, by their pressure on these parts.

Our author supports Gubler, in attributing "crossed" or "alternate" hemiplegia to disease of the medulla at the level of the pons Varolii; but he remarks that this is only one variety of the symptoms produced by injury of what is perhaps the most complex part of the nervous system; thus we may also meet with loss of speech as a muscular act; with anæsthesia on one side of the body and akinesia on the other;* and, finally, with symptoms due to perverted vagus-innervation (as, violent palpitation, extreme slowness of cardiac and respiratory movements, cyanosis, dysphagia, or vomiting).

The *optic thalamus*, according to M. Luys, is made up of

* Dr. H. Jackson's case (Lond. Hosp. Rep., II., 1865), is analogous, in which there was paralysis of the sensory part of the fifth nerve on the left side, and of the motor part on the right.

two parts. 1. Externally, a mass of gray matter on the side of the third ventricle, which is apparently an expansion of the central gray matter of the cord, and into which the fibres coming from the cerebral convolutions chiefly enter. 2. Internally, a series of four ganglionic masses, the most anterior of which is connected with the olfactory nerve, the second with the optic, the third with the ascending spinal fibres, and the fourth with the auditory. The largest of these, and usually the most vascular, is the optic centre; the smallest is that connected with the sensory tract of the medulla.

The anatomical relations of the thalamus would lead one to suppose it a "sensorium commune," in which centripetal impressions undergo some change before they are capable of exciting the activity of the cortical cells. Pathological evidence* goes to show that disease of this organ is attended by affection of the senses; the sight (as we should have supposed *à priori*) being that which suffers most frequently, in the way of hallucinations, diplopia, hemiopia, and amaurosis; but hearing, smell, and touch may also be injured.

Luys looks upon hysteria as probably a dynamic affection of the thalami, perhaps produced by uterine disorder, in the same way as functional paraplegiæ due to intra-pelvic disease. He considers catalepsy to be particularly connected with disease of that part of the thalamus which informs us of the state of our muscular system, having, in the only two cases of catalepsy which he has examined after death, found disease of that centre.†

He explains hallucinations by supposing that the nerve-cells of the optic thalamus are put, by local changes of circulation or other causes, into the same state as is usually produced by external impressions; thus accounting for the persistence of hallucinations after the nerve or organ of sense has been destroyed, for their occasional occurrence on one side only, and for their very various combinations.

The gray matter of the *cerebral convolutions* is divided by M. Luys into two parts: the inner layer being decidedly more vascular, and containing larger ganglionic cells, than the outer. He argues, from the analogy of the spinal cord, in which the anterior cornua of gray matter are mainly composed of large cells, and the posterior cornua of small ones,

* Especially that of a case, recorded in Vol. XIII. of the Med. Chir. Trans., where the thalami were completely destroyed by carcinoma, which had spared the rest of the brain.

† Case CXLIV. of Dr. Ogle's Collection (Brit. and For. Rev., April, 1865) is also one in point.

that probably the outer layer of small cortical cells elaborates and retains sensory impressions, while the large cells of the inner layer are concerned in voluntary motion. There are some interesting speculations on the nature of aphasia, which are too long for me to dwell on here; but I may mention that a parallel is drawn between aphasia and what may be termed "agraphia," which throws light upon both affections.*

Fibres converge from all parts of the convolutions towards the optic thalamus; most of them enter it, and are distributed to its central and posterior parts almost exclusively; the remaining ones pass over the external and inferior surfaces of the thalamus and make a sharp bend to enter the striate body.

The *corpus striatum* differs from the thalamus in being much more vascular, and containing a much greater proportion of large nerve-cells, which alone would lead us to suppose its function to be motor, and this suspicion is confirmed by finding that it receives, besides the superior cerebellar peduncles and the fibres from the convolutions, those from the anterior columns of the spinal cord. Our author believes its special office to translate (so to speak) the impulse given by the convolutions into a stimulus to voluntary motion.

The *cerebellum* has given M. Luys more opportunity for interesting speculations than any other part of the nervous system. He looks upon it as a constant generator of that nerve-force which is expended in every act of voluntary motion;† inferring this from

1. The anatomical connections of the organ, which are with the corpus striatum and the anterior part of the spinal cord.

2. The results of vivisection; for complete destruction of the cerebellum produces weakness and uncertainty of movement, while division of one inferior peduncle causes a kind of hemiplegia on the opposite side, and, as a further result, the well-known "mouvements de manège."

3. The evidence of pathology. Luys has collected and analyzed 100 cases of cerebellar disease; and, as the subject is one not very well known in England, I may briefly repeat his conclusions. The most prominent symptom was muscular weakness, or asthenia (not true paralysis, which is very rare), most frequently bilateral and progressive. The gait in walk-

* Marcé (Mém. de la Soc. de Biologie, 1856, p. 100) is the principal French writer on the loss of power to write.

† This is, substantially, Dr. Dickinson's view, in his very able article on the cerebellum, in the Brit. and For. Rev. for October, 1865.

ing is usually uncertain and staggering, having been compared, by some observers, to that of a drunken man, by others, to that of a person with general paralysis.* Quasi-paraplegia was noted in only seven cases, and in all of these it rapidly progressed, so as to involve the whole body. Difficulty of speech, as a muscular act, was noted in twenty cases, varying from mere hesitation to an absolute inability to articulate. The tongue, too, was sometimes slowly and tremulously protruded, and the lips trembled. Irregular movements of the eyes were frequently observed; and, out of twenty-two cases where the pupils were examined, they were found dilated or immovable in eleven; amaurosis, perhaps the most intense form of this ocular disturbance, was noted eighteen times. Convulsions (tetaniform or choreiform) occurred in twelve cases. In twenty-five cases death was sudden, owing probably to arrest of the force required for the muscular movements of organic life: it has been remarked also in vivisections.

Cephalalgia (noted in fifty-eight cases, and almost always occipital), and vomiting (in 35 cases) are the only symptoms not directly connected with motor functions. Deafness was observed in only six cases, while the sense of touch and the intellectual faculties appear to have been always unimpaired.

The cerebellar peduncles, and the masses of gray matter connected with them (the most important of which seems to be the "locus niger") are grouped together by our author under the name of the "peripheric cerebellar apparatus." When disease of this part completely cuts off the communication between the cerebellum and corpora striata, the symptoms produced are the same as those of disease of the cerebellum itself; when one side only is affected, the patient turns to that side in walking; and when the disease, being less severe, only partially breaks the connection, convulsive movements, usually choreiform, occur.†

M. Luys does not attribute any direct sensory or psychical function whatever to the cerebellum; but he suggests that it may, indirectly, have a considerable influence on the

* In only sixteen cases this asthenia was confined to one side of the body; in eight of these it was direct, and crossed in six. This quasi-hemiplegia has no apparent connection with disease of only one side of the cerebellum; for in twenty-eight of the hundred cases, disease of one side only did not present this symptom during life, and in two cases disease confined to one side exhibited distinctly bilateral asthenia.

† In two cases where epileptic fits had been observed during life, the locus niger was found to contain indurated masses.

character. He argues, that the fibres which connect the corpus striatum with the cerebral convolutions and the cerebellum must serve to inform the animal of the amount of motor power at its disposal; and that this will probably lead to violence and irascibility if the cerebellum be over active, and, on the contrary, to pusillanimity and timidity if it be sluggish. This is not mere theory; several cases are quoted from Calmeil, in which great violence was observed during life, and after death the cerebellum was found congested; while on the other hand, Andral's "*Clinique Médicale*" and other works supply cases in which, the cerebellum being either congenitally small or injured by disease, the patients were extremely timid, and sometimes subject to paroxysms of causeless fear.

Applying this hypothesis to pathology, Luys calls our attention to the connection existing between psychical states of this kind and many convulsive diseases, which he considers generally owing to functional derangement of cerebellum or its appendices. Thus the blind fury of epileptic mania, and the peevish irascible temper so often noticed in chorea, may be accounted for.

Proceeding further, he suggests that the earlier, and more puzzling, symptoms of general paralysis are probably due to affection of cerebellum. He points out that the motor symptoms are strikingly like those observed in disease unquestionably confined to the cerebellum; thus progressive muscular weakness, difficulty of articulation, tremor of tongue and lips, affection of the eyes, and choreiform or epileptiform seizures are seen in both; in both, also, bulimia and dysphagia frequently occur near the end.

The "*delire des grandeurs*," so characteristic of general paralysis, is ascribed by him to a misinterpretation, by the already enfeebled brain, of an abnormally abundant supply of cerebellar influence to the striate body. This at first produces ideas of excellent health and prodigious strength, and probably has its influence in determining the tone which the mind, when thoroughly affected, assumes. The disease spreads gradually and surely to the cerebrum, and paralytic dementia is the result. M. Luys states that in all the autopsies of cases of general paralysis which he has made, he has found the gray cortical substance of the cerebellum to be diseased in a more advanced degree than the cerebral convolutions.

In treating of the morbid anatomy of diseases of the nervous system, the author gives great prominence to the law (origi-

nally laid down, we believe, by Turck, of Vienna), that degenerative disease of nerve-cells tends to spread to the fibres connected with them, and thence to the nerve-cells at their other extremity, following the paths which sensation and motion habitually take. The spinal cord furnishes us with the two best known examples of this progress of disease; on the one hand, we have the centripetal progress of sclerosis in locomotive ataxia; on the other, the extension of disease of the anterior cornua of gray matter into the anterior roots of the spinal nerves.

Again, there are a few decisive cases on record which justify us in saying that atrophic disease of the retina spreads to the optic nerve, corpus geniculatum, and natis and testes; and disease of the olfactory to the hippocampus, tænia, and corpus albicans. Atrophy of one cerebral hemisphere, and corpus striatum, appears to be connected with similar affection of the opposite side of the cerebellum; while atrophy of one cerebral lobe extends to the corpus striatum and olivary body on the other side.

What is of more immediate interest to us, as throwing light on the pathogeny of some forms of insanity, is the occurrence of atrophy of the cerebral convolutions secondarily to disease of the optic thalamus. Indeed, of 25 cases of dementia reported by Marcé, in which the thalami were examined, they were found to be diseased in 21.

Mere functional derangement of the thalami, caused by the arrest of one or more sets of sensorial impressions, has a notable effect on the action of the convolutions. Thus M. Dumont has shown that out of 120 persons accidentally blinded, and all manifesting no other evident cause of insanity, 27 presented symptoms of mental disorder, varying in intensity from hypochondria to confirmed mania and dementia.*

The cases in which analgesia and anæsthesia have been set down as determining causes of mental disease, are perhaps analogous; though here the link of causation is probably more strictly psychical.

Perhaps a sufficiently favourable idea of the merits of the work has not been given, since want of space has obliged us in many instances to state the author's conclusions

* M. Bouisson, of Montpellier, has published in the Bull. de l'Acad. de Médecine for Oct. 8, 1860, a most remarkable case of a man who had had double cataract for about three years, and had for some time been in a state of dementia. He was couched, and on the removal of the apparatus, exclaimed, "J'y vois"—the first reasonable sentence he had uttered. His mental state improved so rapidly that in six weeks he was able to return home to gain his livelihood.

without all the evidence on which they are based. Still we have striven to give a general notion of all that has any immediate reference to mental disorders; and, therefore, although much of interest still remains, especially some novel opinions as to the origin of the cranial nerves, the minute anatomy of the nervous centres, and the pathology of convulsive diseases and aphasia, we are reluctantly compelled to refer such of our readers as may wish for further information to the book itself.

J. R. G.

First Principles of Medicine. By ARCHIBALD BILLING, M.D., A.M., F.R.S., &c., &c. Sixth Edition, Revised and Improved. London: Bell and Daldy, York Street, Covent Garden, 1868., pp. 703.

We have now before us the sixth edition, revised and improved, of Dr. Billing's *First Principles of Medicine*, and may take the opportunity of congratulating the author on the unusual success which the advent of a sixth edition must needs chronicle. It is certainly a book which contains much valuable information, the result, not of fanciful theory nor of idle hypothesis, but of close, persevering clinical observation, accompanied, as is remarked by the reviewer in the *Medico-Chirurgical Review*, with much soundness of judgment and extraordinary clinical tact.

The work consists rather of general pathology than of what is usually called the practice of medicine, but will be found to contain the essentials of the treatment of disease and of the actions of our chief medicinal agents. These Dr. Billing divides into *stimulants*, *sedatives*, *narcotics*, and *tonics*, and he affords a highly useful guide to clinical practice by showing how these may be combined, at certain seasons and in certain cases, advantageously one with another. At the same time the author never loses sight of the bedside; and in the numerous points of treatment in regard to the exhibition of remedies, he advances facts worthy of consideration alike by the student and the general practitioner.

Dr. Billing, indeed, is a thorough believer in drugs, and waxes eloquent in his condemnation of persons who doubt "the efficacy of valuable remedies from not knowing how to apply them, and who, from misapplication, pronounce powerful and efficacious remedies to be either inert or injurious." *Qui*

capit ille facit. With but a scanty measure of space at our disposal, it is out of our power to enter into a lengthy critique of the various ably written chapters in the work before us, but we notice with pleasure that in his remarks upon insanity Dr. Billing quotes in full the paper read by Dr. Harrington Tuke before the annual meeting of the *Medico-Psychological Association*, and published in the October number for 1867 of this Journal, on "*Monomania and its relations to the Civil and Criminal Law.*" In this chapter on Insanity, Dr. Billing insists with much force on the fact of insanity being evidently of a physical and curable nature, if stript of the absurdities which have arisen from taking a metaphysical view of the question; but when he goes to the other extreme and asserts that phrenology is the only key to properly understanding the mind, we cannot think he will carry his readers so willingly with him. These remarks are the more strange, as Dr. Billing in the next paragraph denies being a phrenologist. The work is well got up, and the type and printing are all that can be desired.

Catalogue of the Pathological Museum of St. George's Hospital.
 Edited by JOHN W. OGLE, M.D., F.R.C.P., and TIMOTHY
 HOLMES, F.R.C.S.

THE Catalogue of St. George's Hospital—a neat and compact volume—which, owing to unforeseen circumstances, was so long in preparation, is creditable alike to the scientific spirit and the patient industry of its Editors. The description of the morbid specimens are clear and concise, indicating the peculiar pathological features in each specimen, without entering too much into details. Following each description is a brief account of the symptoms presented during life by the patient from whose body the morbid structure has been taken. References to the Case Book and *Post-mortem* Book of the Hospital, and to the "Pathological Society's Transactions," or other publications in which an account of any particular case has been published, add greatly to the convenience and assistance of the student. We have looked with special interest through the compartment of the Catalogue devoted to Injuries and Diseases of the Brain and Spinal Cord, which, both in many of the interesting morbid specimens described, and in the character of the descriptions, bears evidence of Dr. Ogle's well-known pathological researches.

Miscellaneous Contributions to the Study of Pathology. By
JOHN W. OGLE, M.D., &c.

THE brochure appearing under this title is a reprint from the "British and Foreign Medico-Chirurgical Review," for January and April, 1868, and has for its special subject the clinical history of chorea. Its author, Dr. John Ogle, is well known to our readers as the writer of several valuable contributions to the pathology of the cerebro-spinal system which from time to time appeared in this Journal. Probably, also, many among them have studied this paper in its original place in the "Medico-Chirurgical Review;" consequently, it will be the less necessary to attempt an exhaustive notice of its contents.

THE prolific mine which Dr. Ogle has so well worked in the production of pathological essays is the hospital records of St. George's Hospital. From the same source most of the materials for this paper on chorea are derived; but it is supplemented by the experience of Dr. Ogle himself, and of other physicians. He starts with the course and *post-mortem* appearances of sixteen fatal cases of chorea, and then passes in review their most important features. In the next place, he tabulates the particulars of eighty non-fatal cases of the disease, and thereupon makes a summary of their teachings; and lastly he appends notes of anomalous and of other cases, both fatal and non-fatal, either observed by himself or communicated to him by others. This represents the source of the materials employed, and the plan resorted to by the author in dealing with them. We are ready to grant that the production is only a brochure, and not a finished essay; otherwise we might take objection to it in not concluding with a complete commentary on the whole of the experience put on record, elucidated by references to the latest doctrines of nerve physiology and pathology. We trust that Dr. Ogle will be induced to undertake this task, not only in regard of chorea, but also in regard of those other nervous maladies to which he has devoted so much attention, and in this way present the pure metal educed from the mixed mass of clinical detail, for the immediate use of those who have not time to follow him through the process of analysis and sifting requisite for its separation.

AMONG the *post-mortem* appearances in fatal chorea, Dr. Ogle lays great stress upon cardiac disease. In no less than ten of the sixteen fatal cases recorded, there existed more or

less fibrinous deposit, or granulations, upon some portions of the heart's valves, or lining membrane; although in several of them no observation of valvular murmurs is noted in their history during life. He is not prepared, however, to admit it as a rule that cardiac deposits are attended by embolism of the cerebral vessels, though inclined to the opinion that minute particles of fibrin may plug the capillary vessels of the brain. And even if embolism be admitted as a general fact, he submits that it is no necessary inference that such embolism is the essential cause of chorea. On the contrary, he is disposed to regard such *post-mortem* appearances rather as results of some antecedent general condition of the blood, common also to the choreic condition.

The table of non-fatal cases does not confirm the opinion advanced by some physicians respecting the intimate and very prevalent association between chorea and rheumatism. The connexion with uterine derangement is also not at all rendered evident. Mental disturbance is noted in only two examples; but paralytic symptoms existed in as many as eleven of the eighty. Lastly, fright, or mental emotion, does not play the important part in the causation of chorea represented by many writers; and the high specific gravity of the urine, coupled with abundant urea, spoken of by several physicians as a feature of the disease, derives no confirmation from the researches of Dr. Ogle.

Thus these pathological statistics of chorea unsettle much of the accepted doctrines of the text books of medicine, and, on the other hand, supply a few positive truths in their place; and, insomuch, they contribute to the demolition of those morbid entities which nosologists of the past were so delighted to pourtray by strongly-defined characteristics.

PART III.—QUARTERLY REPORT ON THE PROGRESS OF PSYCHOLOGICAL MEDICINE.

I. German Psychological Literature.

By JOHN SIBBALD, M.D. Edin., Medical Superintendent of the District Asylum for Argyllshire.

I. Allgemeine Zeitschrift für Psychiatrie, Vol. XXIV., 1867. Contents.—"Contraction of the Orifice of the Vertebral Canal in Epilepsy," Prof. Solbrig; "Disorders of the Ear and Insanity," Köppe; "Hypodermic Injection of Medicines," Reissner; "Suicide in the Asylum at Sachsenberg," Löwenhardt; "Two Medico-Legal Reports relating to Dissimulation and Simulation," L. Meyer; "Delirium acutum," Schüle; "On the Pulse of the Insane," Wolff; "Paralysis Universalis Progressiva in the Schleswig Asylum," V. Linstow; "Hæmorrhagic Rupture of Muscles in Severe Cerebral Disease," Schüle; "Idiocy in Brunswick," Berkham; "A Visit to Gheel," v. Krafft-Ebing; "Pathogenesis of Insanity," Schüle. Report of the Meeting of German Alienists at Heppenheim. Report of the Psychiatric Section of the Meeting of the Natural Science Association at Frankfort-on-the-Maine.

II. Vierteljahrsschrift für Psychiatrie, Parts 1 and 2, 1867.—Contents.—"Meningitis cerebro-spinalis epidemica intermittens," Meschede; "Modern Acquisitions in the Department of Physiological Psychology," Wundt; "Insanity from Embolism of the Cerebral Vessels, with concurrent Mitral Incompetence," Joffe; "Injection of the Brain in Living Animals," Leidesdorf and Stricker; "The Formation of the Cortical Substance of the Cerebrum and its Topical Differences," Meynert; "Clitoridectomy as a Remedy for Hysteria, &c.," J. B. Ullersperger; "Weight of the Brain, and its Relations to Sex, Age, and Insanity," Meynert; "The Mental Element in the Aetiology and Therapeutics of Insanity," Obersteiner; "Acute Intoxication from Alcohol, with Fatal Result," Schauenburg.

Der Irrenfreund for 1867. Contents.—"The Writing of the Insane," "Are Nic Hampel and his Daughter Insane," Field; "Report on the Mental Condition of Widow B.," "Hallucinations and Illusions," Brosius; "Remarks on Non-Restraint and Colonies for the Insane," Koster; "Medico-Legal Report on Prisoner X.," Bernay; "History of One Possessed," v. Franque.

Archiv. für Psychiatrie. Parts 1 and 2, 1867-68. Contents.—"Valleix's Painful Points in Neuralgia," Romberg; "Asylums and their

further Development in Germany," Griesinger; "The Present Position of our Knowledge of General Paralysis of the Insane," Westphal; "Crania progenæa," L. Meyer; "Absence of Corpus Callosum in the Human Brain," J. Sander; "Introductory Lecture at the Berlin Clinique, 2nd May, 1867," Griesinger; "Public Provision for the Insane in Austria," Schlager; "Atrophy of One Side of the Face," P. Guttmann; "The Free Treatment," Griesinger; "Forensic Examination of the Insane," Liman; "Encephalomalacia," Th. Simon; "Aneurismal Degeneration of the Cortex Cerebri," L. Meyer; "Two Microcephalous Brains," J. Sander; "Hereditary Syphilis and Insanity," E. Mendal; "Method of Examining the Contents of the Cranium," Griesinger; "Certain Epileptic Conditions," Griesinger; "Abnormal Forms of Cranium," L. Meyer; "Epileptiform and Apoplectiform Attacks in Paralytic Insanity," Westphal; "A Special Form of Primary Incoherence," W. Sander; "Pathology of the Sympathetic," Eulenberg and Guttmann.

Contraction of the orifice of the vertebral canal in epilepsy.—Dr. Solbrig, of Munich, reports nine cases in which insanity was associated with epilepsy or epileptiform convulsions, and in which there was found after death such decided contraction of the vertebral canal round the medulla oblongata as to compress that organ. In some of the cases there was considerable alteration in the form of the medulla from being compressed by a hypertrophied odontoid process or other osseous protuberance.

Disorders of hearing in insanity.—Dr. Köppe, of Halle, discusses the connection of affections of the ear with hallucinations of hearing. Out of 97 insane persons he found 31 who suffered from some affection of the ear. In some of these cases there were no hallucinations, but in others there were. In no case of ear affection where there existed simple subjective noises was simultaneous illusion and hallucination of hearing absent; but among 26 not suffering from any affection of the ear there were nine with simple subjective noises, but without hallucinations.

Hypodermic injection of remedies in insanity.—Dr. Reissner, of Hofheim, discusses at length the application of remedies by this method. He only finds it practically useful with narcotics, and recommends Narcine as being the most useful of the alkaloids obtained from opium in cases where a tranquillising or hypnotic effect is desired. He hopes from the result of the use in a few cases of extract of cannabis indica to find it a useful remedy; but his experience of its action is not yet sufficiently extensive.

Suicide in insanity.—Dr. Löwenhardt, who has succeeded Dr. Flemming as superintendent of the asylum at Sachsenberg, gives an analysis of the statistics of suicide as observed in that institution. Since the opening, 37 years ago, 22 patients—13 males and 9 females—have committed suicide. There have been treated during the same period, exclusive of those still remaining in the asylum, 1,892 patients.

—999 males and 893 females—and the total number of deaths has been 447—283 males and 164 females. There are thus about 5 per cent. of the deaths ascribed to suicide, which is a large proportion. In the asylum at Halle there died, between the years 1844 and 1864, 604 persons in all, and of whom 10 were suicides; and in Illenau, from 1842 to 1862, among 547 deaths 16 were suicides. There were thus in Halle only 1·7 per cent., and in Illenau about 3 per cent., ascribed to suicide. In Würzburg there were during 26 years, among 78 deaths, 5 suicides, or more than 6 per cent.; but this was in the period from 1798 to 1824.

Of the 22 cases which occurred in Sachsenberg, 15 occurred in the season from April to September, and seven from October to March. In the morning and forenoon nine effected their object, in the afternoon eight, and five during the night. The modes in which the object was effected were by hanging in 10 cases, and drowning in eight. One patient leapt out of a window; another killed himself by a fall from a tree; a third by a wound in the neck; and a fourth threw himself before an advancing train.

As regards the ages there were—

Between 20 and 30 years of age, 5 patients.					
„	30	„	40	„	9
„	40	„	50	„	5
„	50	„	60	„	1
„	60	„	70	„	2

Twelve were married, one was separated, and nine were unmarried.

The duration of the insanity was in three cases less than six months; in eight cases, from six to twelve months; and in 11, more than a year. In 14, the suicide was accomplished during the first six months of residence, and 10 of these put an end to themselves during the first three months. There was ascertainable hereditary predisposition to insanity in 10 cases; it was absent in 10 cases, and in two cases it could not be ascertained. Fourteen patients suffered from primary melancholia, two from melancholia as a sequel of mania, three from delusions of persecution, two from secondary dementia, and one from epilepsy, with imbecility and excitement. In 19 cases there were previous attempts at suicide, or manifestation of *tedium vitæ*, so that the event was completely unexpected only in three cases. Hallucinations of hearing were observed in seven cases, but suspected in several others; in one case it appears to have been the direct occasion of the event. This was also the only case in which there was any declaration in writing regarding the deed, or rather regarding the hallucination which led to it.

The author notes that during the first twelve years of the existence of the asylum no suicide took place, and he remarks that neither his predecessor, Dr. Flemming, nor himself can furnish a certain reason for this exemption, though it is worthy of notice that it was just at this

time that the asylum began to be overcrowded. "In this overcrowding, we must certainly find one of the causes of the evil. There was no longer possible the placing of individual patients in smaller divisions for more careful superintendence; and it became unavoidable that all the patients who disturbed others at night should be placed in a large cell-division,* where there were thus collected the restless melancholics, acute maniacs, dirty patients, and deeply demented; a condition which still continues. By this the supervision is rendered much more difficult, and the opportunities for suicide are increased. The number of such occurrences may be to some extent accounted for by the near neighbourhood of a deep lake, whose banks slope suddenly down at the edge. At any rate, both the overcrowding and the deep lake facilitate the carrying out of such purposes. I am also convinced that melancholia, with suicidal tendency, is much more frequent here, and genuine maniacal excitement more rare, than in the asylums of the middle and south of Germany."

The author alludes to the use of opium, cannabis indica, and cold bathing as remedies against afflictions associated with this impulse, but has little confidence in their efficacy.

Delirium Acutum.—Dr. A. Schüle discusses the question whether there really is a separate form of disease which ought to be recognised under this name; and decides that it is not a disease *sui generis*, but is to be understood as a special pathological *modus* in the course of the symptoms of cerebral affections. The same author also contributes a paper on the

Pathogenesis of Insanity.—Attention is drawn to the important part which is played in modifying and even originating insanity by other organs than the brain. The paper does not admit of abridgement.

Hæmorrhagic Rupture of Muscle, associated with Disease of the Brain.—This paper is also by Dr. Schüle, and relates to three cases in which the affection described by Virchow, Zenker, and Waldeyer was obtained.

The anatomical investigations confirm those of the previous observers; but the author combats Zenker's view that the origin of the disease lies in the spinal cord. He believes that his cases point to a connection between severe lesion of the brain and the muscular degeneration. The muscles affected in his cases were the *rectus abdominalis* and the *psaos*.

A Visit to Gheel.—Dr. von Krafft-Ebing visited this source of so much discussion in November, 1866, and gives his impressions of the visit. He formed a favourable opinion of the system, and is in favour of engrafting some of its features on the asylum system. We have some difficulty, however, in fully appreciating his remarks, as the ordinary views of asylum treatment held by our German brethren prevent them from looking at such matters from the same point of

* Section of the building composed chiefly of single rooms, intended specially for noisy and destructive patients.

view as ourselves. He describes an old woman, noisy, frightened, and excited, whom he found in the outskirts of the district; and he makes this remark, "What with us would have required a room, a chair, and a jacket, does not require them here, owing to the natural state of affairs."

Meningitis cerebro-spinalis epidemica intermittens.—The most interesting point in this paper is the comparison by Dr. Meschede of the mental symptoms produced in this disease, with those presented in general paralysis. The author had an opportunity of investigating this species of meningitis during the epidemic which prevailed in West Prussia, in 1865. The post-mortem appearances exhibited by the disease were deposits of purulent exudation upon and beneath the cerebral membranes. These were found both on the membranes covering the brain, and also on those lining the ventricles, and covering the spinal cord. There was also found, on microscopical examination, nucleus and cell proliferation of the vessels of the pia mater, and their prolongations into the sulci, but without morbid alteration of the nerve cells. The case which is the special subject of the paper, was one in which the disease ran a slower course than usual, and assumed an intermittent type. During three months, which it continued, the mental capacity was preserved in complete integrity as far as its essential constitution was concerned. During intermissions the consciousness was perfectly clear, the judgment correct, the association of ideas rational, the temper neither melancholic nor exalted, and no trace of grandiose delusion. The febrile paroxysms were characterised by an abnormal excitability from external stimuli, without any symptom of derangement of the internal organisation of the mental organ. In another case, observed by Meschede, and published in No. 31 of the "*Deutsche Klinik*," the meningitis attacked an imbecile of a restless and fretful temper, who was subject at irregular intervals to attacks of maniacal excitement and confusion. The post-mortem appearances showed the characteristic purulent meningitis extending down into the sulci; but the symptoms during life were quite free from emotional excitement, and consisted almost entirely of a gradually increasing somnolence, ending in coma.

Modern Researches in Physiological Psychology.—Dr. Wundt reviews the more recent works which have influenced educated opinion in this department, and shows a preference for such as are best represented in this country by Professor Bain. Considerable space is devoted to the discussion of the measurements of time occupied by physiological and psychological processes. The investigations of Hirsch, de Jaager, Mach, and others are specially alluded to; but the author does not, more than previous writers, lead us further than the threshold of the subject.

Insanity produced by Embolism in the Brain, with Mitral incompetence in the Heart.—In this case the smaller vessels supplying the upper surface of the cerebral hemispheres were occluded by emboli, which are

believed by Dr. Joffe, who reports the case, to have been set loose from vegetations upon the mitral valve. The patient was admitted to the Vienna district asylum in May, 1865, and died in April of the following year. She was 46 years of age when admitted, a day labourer, and a native of Bohemia, and was in a state of deep mental depression. The countenance expressed deep anxiety; the head was held fixedly in a constrained position, for no assignable reason; and she complained of a sense of fullness of the head. She was slow, and slightly paralytic in movement; both pupils were equally contracted. On auscultation a systolic murmur was heard over the left ventricle, and the second sound was strengthened in the pulmonary artery. Sensibility was extraordinarily altered in the skin. No amount of irritation produced pain; but she could hold objects firmly in her hand, and could tell, if any one touched her, where she was touched. Taste and smell were quite deadened.

Her condition underwent considerable variation; improvement repeatedly manifested itself, but as frequently was suddenly terminated by the appearance of deep depression. After one of these attacks she exhibited delusions as to the existence of parts of her body, believed that she had no blood, no stomach, &c. After death the lesion already mentioned was found, and is believed by Dr. Joffe to account for the symptoms.

Injecting the cerebral vessels in living animals.—Prof. Leidesdorf and Dr. S. Stricker detail the results of some experiments made upon domestic fowls by injecting foreign substances into the carotids. By injecting a small quantity of water, containing potato starch, violent convulsions were rapidly produced, and the creatures died after a few violent paroxysms. Examination of the brain showed that the granules only in very rare instances reached the capillaries, being stopped in the smaller arteries where they completely arrested the flow of blood. The greater number were found in the cerebral hemisphere of the operated side, but some also reached the other side, and some were even found in the basilar artery and its delicate branches.

Some fowls into whose carotids 60 cubic centimetres of water were injected, under a pressure of three atmospheres, fell into a state of apparent intoxication, from which they recovered after from half-an-hour to an hour, while others who were subjected to the same experiment died. A constant result of the injection of water was the diminution of the frequency of the respiration to a half, or even to a third. A practical inference which the authors draw from their experiments is that water, or, at least, very diluted blood, may be substituted for good blood in the brain for some time without very injurious effect; and where there is imminently dangerous intoxication, the blood may be largely diluted with water when other remedies cannot be applied.

Clitoridectomy, as a remedy against Hysteria, Epilepsy, and Mental Derangement consequent on Masturbation.—Dr. Ullersperger reviews the correspondence between Dr. West and Mr. Baker Brown, which

was published in the "*Lancet*" in 1866, and comes to the conclusion that the operation is justifiable only in very exceptional cases, where there is strong reason to anticipate a good result and when every other remedy has been tried. Two cases, however, are mentioned in an editorial note which follows the paper, in which Professor Gustav Braun, of Vienna, had performed the operation and with the best results.

The Weight of the Brain.—Dr. Meynert has made an elaborate investigation of the weight of the brain in 157 cases in the Vienna asylum. He makes the following deductions. 1. The ratio between the average weight in males and in females respectively is as 100 : 90.32. At the ages at which the brain attains its greatest weight the difference is much larger. 2. The highest weight in males is reached in the fourth decade, and in females it is the fifth decade. 3. The difference in weight between the sexes is much greater than the difference between the weights in the same sex before and after the period of full development—that is, between the weight at 20 years of age and 69. This is true, also, of the several parts of the brain—convolutions, central ganglia and medulla, and cerebellum. 4. In males before old age there is proportionally more central stem (ganglia medulla, &c.), and less of the convolutions (*Hirnmantel*) than in females. 5. The brains of the insane exhibit proportionally more cerebellum than those of the sane, which probably depends on the greater diminution of other parts of the brain in connection with the insanity. 6. The difference according to age refers less to the convolutions than to the cerebellum and central stem. 7. The absolute highest weight of the convolutions appears to be attained in the third decade, and certainly it is proportionably highest then. 8. The increase of the collective weight after the third decade is connected chiefly with increased weight of cerebellum, the absolute weight of which organ corresponds closely with the age. 9. The convolutions begin to decrease earlier in women than in men. 10. The difference of sex shows itself more especially in the proportion of convolutions than of the entire brain.

The proportional weights found in different forms of insanity may be seen in the following table. The weight in cases of primary insanity is taken at 1000, and the numbers opposite the other forms represent the proportional average decrease corresponding to each:—

		Males.	Females.
Primary insanity	- -	1000.000	1000.000
Transitory forms	- -	12.048	34.566
Simple dementia	- -	39.701	105.547
Paralytic dementia	- -	61.793	108.200
Alcoholism	- -	60.167	
Epilepsy	- -	52.600	

In connection with the forms of insanity, Meynert found that the greatest loss of weight in the convolutions of both males and females

occurred in paralytic dementia, and also a great loss of weight in the central stem among all other forms of insanity among males. The greatest loss of weight in the cerebellum was found in epileptics. The author also comes to the following conclusions:—Primary depressed forms are apparently connected with a greater weight of brain than primary excited forms. The successive stages of insanity are associated with corresponding decreasing weight of brain. The smallest collective weight of brain is found in paralytic dementia, the next smallest in alcoholism. Depressed forms of insanity appear to be especially connected with decrease in the central stem, and excited forms with decrease in the convolutions.

[The other papers in the *Vierteljahrsschrift* are all to be continued in following numbers. They will be noticed when complete.]

(To be continued.)

II. American Psychological Literature.

By S. W. D. WILLIAMS, M.D., L.R.C.P. Lond., Assistant Medical Officer, Sussex Lunatic Asylum, Haywards Heath.

American Journal of Insanity, Volume XXIII., July, 1866, to April, 1867.

JULY, 1866, No. 1.—“Intemperance and Insanity,” by W. S. Chipley, M.D.; “The Care of the Chronic Insane Poor of the State of New York,” by George Cook, M.D.; Proceedings of the Association.—SUMMARY: “The Care of the Chronic Insane of the State of New York;” “Hudson River Hospital for the Insane;” “Acknowledgment;” “State Hospital for the Insane in Connecticut.”

OCTOBER, 1866, No. 2.—“The Insanity of Women produced by Desertion or Seduction,” by Dr. I. Ray; “The Mental Operations in Health and Disease,” translated by J. H. Worthington, M.D.; “Mount Hope Institution—Trial for Conspiracy,” by W. H. Stokes, M.D.—BIBLIOGRAPHICAL: “*Traité des Maladies Mentales, Pathologie et Thérapeutique*,” par W. Griesinger; “*Etude Médico-Légale sur la Simulation de la Folie*,” par le Docteur Armand Laurent.

JANUARY, 1867, No. 3.—“Decisions of English Courts in the Law of Lunacy;” “On Moral Insanity,” by Dr. Jules Falret.—BIBLIOGRAPHICAL: “Review of recent Works on Idiocy;” “Review of recent Works on Mental Disease;” “Lectures on Mental Diseases,” W. H. O. Sankey, M.D., London, &c., &c.; “*Traité des Maladies Mentales*,” par W. Griesinger, M.D., &c., &c.; “Review of American Reports.”—SUMMARY: “Resignation of Dr. Ray;” “Hudson River State Hospital for the Insane;” “State Asylum for the Insane,

Kalamazoo, Mich.;" "The Asylums of Ohio;" "Minnesota Hospital for the Insane;" "Asylum for Coloured Insane, Nashville, Tenn.;" "Appointments."

APRIL, 1867, No. 4.—"History and Description of the Northampton Lunatic Hospital, Mass.," by Pliny Earl, M.D., Superintendent; "On Moral Insanity," by Dr. Jules Falret; "Imbecility and Homicide—case of Gregor McGregor."—BIBLIOGRAPHICAL: "Review of American Reports;" "Mental Exertion in relation to Health," by Amariah Brigham, M.D.; "Observations on the Scientific Study of Human Nature," by Edward L. Youmans, M.D.; "Reflex Paralysis, &c.," by M. Gonzalez Echeverria, M.D.—SUMMARY: "Insanity in Great Britain;" "The New Asylum for Eastern New York;" "Michigan Asylum for the Insane;" "Obituary;" "Appointment;" "Meeting of the Association."

Volume XXIV.—July, 1867, to April, 1868.

JULY, 1867. No. 1.—"Aphasia," by Dr. H. B. Wilbur; "On Provision for the Chronic Insane Poor," by Dr. John B. Chapin; "Asylums for the Chronic Insane in Upper Canada;" "On Moral Insanity," by Dr. Jules Falret (conclusion); "The Asylums for the Insane in St. Petersburg and Copenhagen," by T. B. Belgrave, M.D., &c. (From the "Journal of Mental Science," April, 1867.)—BIBLIOGRAPHICAL: "Insanity in its Medico-Legal Relations: Opinion relative to the Testamentary Capacity of the late James C. Johnson, &c.," by Wm. A. Hammond, M.D., &c.; "A Treatise on Emotional Disorders of the Sympathetic System of Nerves," by Wm. Murray, M.D., &c.—SUMMARY: "Asylums for Chronic Insane;" "Connecticut State Hospital for the Insane;" "The Destructiveness of Insane Patients;" "Provision for the Insane in Ohio;" "Progressive Locomotor Ataxy;" "Dr. Brierre de Boismont on the importance of Insane Acts for the medico-legal diagnosis of Reasoning Insanity," "American Medical Association;" "Association of Medical Superintendents of American Institutions for the Insane;" "Dr. Maudsley on the Physiology and Pathology of the Mind;" "Appointment."

OCTOBER, 1867. No. 2.—"The Psychopathic Hospital of the Future," by Pliny Earl, A.M., M.D.; "History of the Founding and Development of the First Hospitals of the United States," by D. G. Thomas, M.D.; "Statutory Law of New York regarding the Insane;" "Epilepsy and Homicide," by Dr. I. Ray; "Feigned Insanity: Case of Derozier."—BIBLIOGRAPHICAL: "Reports of American Asylums."—SUMMARY: "Testimony of Experts;" "New York State Board of Commissioners of Public Charities;" "Thermometry in Insanity," by S. W. D. Williams, M.D. (From the "Medical Times and Gazette"); "Proceedings of the Association;" "Journal of Psychological Medicine;" "Dr. T. S. Clouston on Tuberculosis and Insanity." ("Journal of Mental Science.")

JANUARY, 1868, No. 3.—“Psychologic Medicine: its importance as a part of the Medical Curriculum,” by Pliny Earle, A.M., M.D.; “Imbecility and Insanity,” by A. O. Kellogg, M.D.; “Proceedings of the Association: Provision for the Chronic Insane.”—BIBLIOGRAPHICAL: “The Physiology and Pathology of the Mind,” by Henry Maudsley, M.D., &c.; “De la Folie Raisonnante, et de l'Importance du Delire des Actes pour le Diagnostic et la Medicine Legale,” Par. A. Brierre de Boismont; “Joseph Guislain: sa vie et ses ecrits,” Par. A. Brierre de Boismont.”—SUMMARY: “Responsibility of Epileptics;” “Treatment of Progressive Locomotor Ataxia;” (“Journal of Mental Science,” July, 1867); “Model Dwellings for the Insane;” “The Retention of Memory in different Forms of Insanity;” “Bromide of Potassium in Cases of Mania;” “Appointments.”

APRIL, 1868, No. 4.—“Junius Brutus Booth,” by A. O. Kellogg, M.D.; “Introductory Lecture at the Re-opening of the Psychiatrial Clinic, at Berlin,” by W. Griesinger.—BIBLIOGRAPHICAL: “Reports of American Hospitals for the Insane, for 1867;” “Hysteria, &c.” by F. C. Skey, F.R.S., &c.—SUMMARY:—“Starvation and Insanity;” “Drunkenness and Crime;” “Monomania;” “Digitalis in the Treatment of Mania, Recent and Chronic;” “Bromide of Potassium in Epilepsy,” by S. W. D. Williams, M.D. (“Journal of Mental Science,” January, 1866); “Treatment of Cerebral Congestion and Hallucinations by Arsenious Acid;” “Pathology of Cerebral Softening;” “Meeting of the Association.”

With but a very limited space placed at our command, it will be quite impossible for us to do justice to the many able papers above recorded; we shall therefore confine ourselves to a notice of such as may seem to us most likely to be of interest to the readers of this Journal.

The first number (July) in Vol. XXIII. is double the size of any of the others, owing to its containing a lengthy notice of the “Twentieth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane,” held on the 24th of April, in the city of Washington, under the Presidency of Thomas S. Kirkbride, Pennsylvania Hospital for the Insane, Philadelphia, Pa.

The proceedings of the Association are commenced by the Secretary reading a letter received from Dr. Wood, President of the Medico-Psychological Association of Great Britain, in answer to the resolutions in regard to Dr. Luther V. Bell, adopted at the last meeting of this Association, and also his answer, which, on motion, were directed to be entered on the minutes.

The following papers were then read:—

“On the late trial of the Physician and Sister Superior of Mount Hope Institution before the Circuit Court of Baltimore county on a charge of conspiracy,” by Dr. Stokes.

"On the Insanity of Women produced by Desertion and Seduction," by Dr. Ray.

"On a review of an opinion given by the Court of Appeals of Kentucky, defining the legal relations of inebriates, and recognising the doctrine of moral insanity," by Dr. Chipley.

"On Provision for the Insane Poor in the State of New York," by Dr. Cook.

The reading of these papers, and the discussions that ensued, lasted over a period of five days, there being a morning and afternoon session each day.

Intemperance and Insanity. By DR. CHIPLEY.—The abuse of intoxicating drinks is so common, and so frequently leads to the violation of law, and to serious disturbances of public order, involving both life and property, that the medico-legal relations of inebriates becomes exceedingly important, and present numerous intricate questions of responsibility. The doctrine of moral insanity offers still more vexed and unsettled questions; nevertheless, we cannot doubt but that there are decidedly instances of derangement of the affective functions, which should free its subjects from legal responsibility for unlawful acts, notwithstanding the intellectual faculties remain intact. Dr. Chipley, however, in the above paper, holds this doctrine to be incorrect. "I regret," he writes, "that I have not been able to perceive its truth, and that I closed my investigation with a still more thorough conviction that it is false in fact, and extremely dangerous in practice. We cannot admit," he continues, "the existence of disease as an excuse for crime while the act bears all the marks of moral depravity, and while there is no evidence of unsoundness of those faculties on which alone man's accountability is founded."

The Care of the Chronic Insane Poor of the State of New York. By GEORGE COOK, M.D.—The paper with this title, which appears in the July number of the *Journal*, will attract attention, as the first laboured effort in defence of separate establishments in America for the chronic insane, and is, moreover, of interest just at present to English psychologists, as giving an American view of a question which has lately been largely discussed in England, viz.: the desirability of building cheap supplementary asylums for the chronic insane and imbecile.

The main argument of the writer is founded upon an assertion, the truth of which, he thinks, he finds in the history of American legislation, that New York is unable or unwilling, or both, to build sufficient hospitals for her insane; and, therefore, some other and cheaper method must be devised for the care of this unfortunate class of her children. He does not contend that the system of separate asylums for the chronic insane is the best in itself, but that is best only under all the circumstances. He acknowledges that, were it feasible to secure enough hospitals, on the existing plan, for all the insane of the State, he would not advocate a change; but this he believes to be impractic-

cable, because "for fifteen years efforts have been made, without success, to secure the passage of a bill through the legislature of the State of New York, for one or more state hospitals of this character;" therefore, he asks, "is it not wiser to take it (the scheme of providing for the chronic insane in separate institutions) rather than adhere to the unattainable, and get nothing?"

Dr. Cook's views do not appear, however, to be endorsed by either his *confrères*, or by the editors of the "American Journal of Insanity." It seems to be the general opinion in America that the erection of *Incurable* and cheaper hospitals for the chronic insane, apart from the Curative Establishments, is pernicious, and would be anything but a wise economy. It is true, they argue, that the history of legislation in the State of New York during the fifteen years ending with 1865 supplies but one example of *well-planned, well directed, and strenuous* effort in behalf of the insane of the Commonwealth—viz., in 1857 when the neglected condition of the poor insane, and the necessity of further state provision, were brought to the attention of the Legislature by the forcible report of the Select Committee on Charitable Institutions, Poor Houses, &c. The report was, however, accompanied by a bill providing for the immediate erection of two State Hospitals. This bill passed the Senate. "In the Assembly it passed a third reading, when its further progress was arrested by the premature adjournment of the Legislature."

The subject was not again called up, until two years ago, when, almost in the midst of a civil war of unprecedented magnitude, and with an accumulated debt of vast proportions, the Legislature of the State responded at once, without discussion or dissentient voice, to Dr. Willard's appeal, and the Willard Asylum was created. And in further evidence that the State is *potens et volens*, and that there is no disposition to evade or ignore the just claims of the insane, the Legislature, last winter, authorised the Governor to appoint a Board of Commissioners to select and contract for the site of a third State Hospital, to be located on or near the Hudson River, below the City of Albany.

The proposition to erect special asylums for the chronic insane met similar disapprobation and defeat in Kentucky, Ohio, and Connecticut, the first two making liberal grants to enlarge existing hospitals: in Ohio to the extent of doubling the capacity of two of her state hospitals, while Connecticut has just passed a law, authorising the construction of a General State Hospital for the insane, at a cost of 200,000 dollars.

In this connection, we may call attention to *recent* legislation in New Jersey, Iowa, Indiana, West Virginia, Nova Scotia, and Canada West, where liberal appropriations have been made to enlarge or complete existing hospitals, and to Minnesota and Kansas, at present engaged in the establishment of state hospitals for their insane.

In California, the assembly committee on state hospitals, to which

was referred the Assembly Bill, creating a state hospital for *curables*, at some point to be determined by a board of directors, and proposing to make the asylum at Stockton an institution for incurables, reported the bill back with a recommendation that the subject be indefinitely postponed.

A Case of Progressive Locomotor Ataxy, treated by Bromide of Potassium and Bark.—This case was originally published in the "New York State Medical Society Transactions," and has been reprinted in the "American Journal of Insanity." It occurred in the practice of Dr. S. O. Vanderpoel, of Albany, N.T. The patient's replies, as to the early period of his affection, are condensed as follows :—

The first indication of any trouble in the feet was about two years since, when he found himself daily taking a seat in an omnibus or car, instead of the usual walk to business; but thought little of it at the time. Soon he could not sit comfortably with the feet resting on the ground, having an inclination to raise them; this feeling continued until he always sat with the feet on a chair before him, and the knees raised. About this time he began to feel a heaviness in the soles of the feet, and a want of sensation, which was followed by a prickling, tingling feeling. In walking he invariably stopped at a street crossing, and hesitated which foot to use in stepping off the kerb; and if a hydrant or lamp-post were near, always put out his hand to assist himself. From that time he always used a heavy cane. The heavy, numb feeling now extended to the legs, and soon after entering the house he found the sofa or bed the most convenient place. He experienced trouble in washing, as when leaning over, and happening for the moment to close the eyes, he found himself staggering backward and forward, not being able to keep his balance. He also had trouble in going about in the dark, and suffered from pain in the legs and joints, always wanting to see his feet when he had occasion to use them. In reply as to the opinion expressed by his physician in New York, he stated that it was considered the commencement of paralysis, which must be gradually progressive. Recognising that the tableau of symptoms presented in no way answered to the diagnosis, I instituted a closer scrutiny. The intellect showed no impairment, nor were there any indications which induced me to suppose this condition imminent, as would be were it progressive paralysis. His sleep was sometimes broken from sudden, and sometimes prolonged, pains, in different parts of the body, chiefly, however, in the lower extremities. Vision had not been affected, either from temporary paralysis of the muscles of the eye, or of the retina itself. The other bodily functions were normal, or nearly so.

In view of the failure of the several modes of treatment hitherto recommended for ataxy, Dr. Vanderpoel ordered in this case a scruple of bromide of potassium in two drachms of Huxham's Tincture of Bark, three times daily. Under this treatment the general health improved, and the severity of the pains was very much mitigated—so much so that after walking a short distance, and gaining a better control of his limbs, he could walk off half a mile and return.

Becoming impatient to reach New York, where his business interests were urgent, he contracted pneumonia, and was for some weeks sick in that city. On his return, Dr. Vanderpoel found that the inflammation had awakened a latent tubercular deposit, and rapid softening was going on. From this period he gradually sunk, and died in about six months. The ataxic symptoms were little marked in the later stages of the malady.

Junius Brutus Booth. By A. O. KELLOGG, M.D.—There are individuals whose career in life to the superficial observer of mental and moral phenomena has ever appeared most strange and anomalous, and whose motives and mainsprings of action have been but little understood or appreciated by the world at large, or even their own friends, however intimate, and the members of their own family.

By the latter they are regarded as warped, eccentric, strange, and their caprices are submitted to in silence, as incident to persons not governed by the same laws which sway ordinary individuals, but who are moved, by curious and unaccountable impulses, to a conduct and course of life not easily explained on ordinary principles.

The world on the other hand, ever ready to judge hastily, and often with unrighteous judgment, and to put the most uncharitable construction upon the conduct of these unfortunates, is too apt to regard them as moral perverts, and hold them to a strict accountability on the established principles of ethics.

To the student of psychological science these characters are of peculiar interest, for while they cannot be regarded as insane, in the ordinary acceptance of the term, he is forced to recognise in them an element which, if not of disease, is so nearly allied to it as, in many instances, to make the line of distinction exceedingly hard to mark. In fact, these persons are apparently life-long denizens of that strange border land which divides the realms of sanity and insanity; sometimes seemingly on one side of the line, and again on the other, as they are impelled by some strange impulse within them which, whether of health or disease, is stronger than the will, and which it would seem impossible for them to overcome, in the very nature of their physical, mental, and moral organisation.

There are forms of insanity, as is well known, that assume a marked periodic character, and persons so afflicted will appear for months to be in a state of complete physical and mental health. This condition is perhaps followed by as many months of marked intellectual disturbance, generally of an exalted or maniacal character, but at times of a depressing or melancholic type.

Such a case evidently was that of Junius Brutus Booth, the great American actor.

He was a man of genius, if ever actor or artist was. He stood, confessedly, in the very foremost rank, if not at the head, of delineators of the higher drama in the first half of the nineteenth century. His career was strange, brilliant, and in many respects unique. Moreover, if any doubt exists in the mind of anyone as to his affliction with positive insanity at periods during his whole career, such doubt will be dissipated by a perusal of the following words, quoted by Dr. Kellogg from the memoirs of Booth's daughter:—

"The calamity," says his daughter, "seemed to increase in strength and frequency with maturer years, and sometimes assumed very singular phases. In the records of his youth, when his profession held out every incentive to ambition, energy, and indefatigable labour, when his habits were most temperate and

abstemious, we occasionally trace those slight aberrations of mind which mark the exquisite turning point between genius and madness. To those accustomed to the intense excitability of peculiar minds, who witness how the mind of the actor is wrought upon by the assumption of harrowing thoughts and fictitious scenes, and who feel how frequently a delineator of the passions thinks, dreams, exists in a sphere of ideality, it is neither strange nor difficult to comprehend how such minds are overthrown by the reaction, and oft-times ruined utterly. Thus from childhood we learned from our mother, the devoted and unwearying nurse of him who endured these periodical tortures of mind, to regard these seasons of abstraction with sad and reverent forbearance."

Upon his characteristics as an actor, Dr. Kellogg thus writes :—

"When he appeared as Richard, he did not seem to us as one merely acting the character, but as Richard he 'lived, moved, and had his being;' and the same may be said of his Lear and Shylock. It is well known that in enacting Richard, so complete was his self forgetfulness, and so 'cunning of fence' was he, that most of his fellow actors were fearful of facing him as Richmond in the last death struggle, lest he should really put an end to them upon the stage; and frequently he had to be reminded that he was merely personating a character, and must suffer himself to be slain—at times, indeed, no light task.

"No nervous organization, however strong and complete originally, can endure the extreme tension necessary for such efforts for any great length of time without having to succumb, and the best reasons that can be given why he did not break down earlier and more completely, are to be found in the irregularity with which he pursued his calling as an actor, his extreme love for retirement into the bosom of his family, and for domestic and agricultural pursuits."

There are forms of insanity in which the individuals will present for months no external manifestations of the disease, when suddenly from some strange illusion respecting those around them they become excessively violent, so much so that it will require the efforts of several strong persons to prevent them from doing serious injury.

The following anecdote of Mr. Booth, related by Dr. Kellogg, will, perhaps, throw some light upon this strange condition of the mind and feelings :—

"Riding with him once, near St. Louis, two Catholic priests crossed the road in front of them. To the utter astonishment of his companion (for Mr. Booth was perfectly sober, and had up to the moment been quite calm and natural), he put spurs to his horse and galloped towards them, exclaiming, '*Gomez and Pescara ! ride them down ! down with them ! down with them !*' and it was as much as his companion could do to prevent him from riding over them.

"The two characters, Gomez and Pescara, as is well known, are two chiefs of the Inquisition in a tragedy of Shiel, called 'The Apostate,' and it being the Moorish Sabbath, Booth was doubtless that day 'one of the faithful,' and his blood being up at the sight of the supposed Inquisitors, his mind for the moment was caused to wander."

His ideas of the sacredness of animal life, Dr. Kellogg tells us, were certainly very eccentric, if not positively insane. All animals about his farm were secure from harm; he allowed nothing to be killed, or to suffer in any way, if he could prevent it. He indulged in no animal food himself for years, neither would he suffer it to be used in his family. Upon one occasion he returned home unexpectedly,

and found his family had been indulging in animal food. Notwithstanding every effort was made to get the roast out of the way, and to prevent his discovery of the transgression, his keen senses caught the odour, and the grief he expressed was painful. If ever they indulged again, it was only when they had the most positive evidence that he was miles from home.

Once, when living on his farm in Harford county, he sent for all his neighbours and friends, far and near, to come to his place and attend a funeral. When they arrived, they found, to their great disgust, that it was the carcase of a favourite horse that he wished to have buried with all due solemnity.

The crowd retired, some in disgust, others laughing at the strange performance. His family, however, understood the meaning of the thing. A physician was sent for, and the "chief mourner" passed through a long and unusually serious attack of disease.

One night when he was to act he did not appear, nor could he be found at his lodgings. He did not come home that night. Next morning he was found in the woods, several miles from the city, wandering in the snow. He was taken care of; his derangement proved to be temporary, and his reason returned in a few days.

We cannot close this very imperfect analysis of the moral and intellectual character of one in whom the elements were so strangely mixed as to lead the world to doubt whether they were of good or of evil, without a glance at his religious convictions.

These, as was to have been expected, partook largely of his native mental and moral characteristics. They were broad, liberal, comprehensive, and founded upon love. With him, indeed, love was the fulfilment of the law, and without it all loudly proclaimed professions were but "sounding brass and a tinkling cymbal."

To the student of psychology this paper cannot fail to be extremely interesting, and the elegance of its diction renders the reading of it truly charming.

The Quarterly Journal of Psychological Medicine and Medical Jurisprudence. Edited by WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System in the Bellevue Hospital Medical College.

JULY, 1867, No. 1, Vol. I.—"On Instinct: its Nature and Seat," by Dr. Hammond; "Merlin, and his Influence on the English Character and Literature," by Dr. Hammond; "On Organic Infantile Paralysis" (with nine illustrations), by Dr. Hammond. SELECTIONS AND TRANSLATIONS: "Aberrations of the Sexual Instinct;" "Remarks on Diseases of the Nervous System;" "Locomotor Ataxia;" "On the Treatment of a Certain Class of Destructive Patients;" "Nightmare in Children." REVIEWS AND BOOK NOTICES: "Ancient Punish-

ments in France" (with illustration); "Idiotcy and its Treatment;" "Insane Asylums in France." CHRONICLE: "The Johnston Will Case;" "Ergot in Diseases of the Spinal Cord;" "The Queen vs. Jane May;" "Decapitation."

JANUARY, 1868. No. 1.—"On the Influence of the Maternal Mind over the Offspring during Pregnancy and Lactation," by Prof. William A. Hammond, M.D.; II. "Remarks on the Trial of Calvin M. Northrup, indicted for the Crime of Administering Belladonna to his Wife with intent to Kill," by Prof. C. A. Lee, M.D.; III. "On the Law of Rape," by Prof. Horatio R. Storrer, M.D.; IV. "On Early Education," by Henry Courtney Atwood, M.D., &c.; V. "A Statement of the Aphasia Question, together with a Report of Fifty Cases," by E. C. Seguin, M.D., &c.; VI. "A Case of Obscure Cerebral Disease," by E. C. Hun, M.D.; VII. "The Proper Use of the Mind, an Introductory Lecture," by Prof. William A. Hammond, M.D.; VIII. "The Dynamometer and Dynamograph of Matthieu," by Prof. William A. Hammond, M.D. CONTEMPORARY LITERATURE.—"Pensylvania Insane Hospital Report;" "Alabama Insane Hospital Report;" "Provincial Lunatic Asylum Report;" "Central Ohio Lunatic Asylum Report;" "New York State Lunatic Asylum Report;" "Robertson On Pavilion Hospitals for the Insane;" "Robertson on Care and Treatment of Insane Poor;" "Morel on the Legal Medicine of the Insane;" "Reed on the Growth of the Mind;" "Youmans on the Culture demanded by Modern Life;" "Dalton's Physiology;" "Flint's Physiology;" "Spencer's Principles of Biology;" "Storer on Abortion;" "Hale on Abortion;" "Stillé on Cerebro-Spinal Meningitis;" "Elliot's Obstetric Clinic;" "Skey on Hysteria;" "Dickson's Studies in Pathology and Therapeutics;" "St. George's Hospital Report;" "Beard and Rockwell on Medical Electricity;" "Ruppaner on Laryngoscopy and Rhinoscopy;" "Lea on Superstition and Force;" "Tissander on Occult Sciences." CHRONICLE. *Physiology and Pathology of the Brain and Nervous System*.—"Monomania and its Relations to the Criminal Law;" "Clinical Cases of Insanity;" "Sitophobia;" "The Ophthalmoscope in Diseases of the Nervous System;" "Doubtful Cases of Nervous Disorder;" "Cerebral Embolism," "Cases of so-called Hysterical Disease;" "Hydrophobia, its History, Pathology, and Treatment;" "Case of Facial Paralysis, &c.;" "Paralysis from Exhaustion of the Spinal Cord." *Medical Jurisprudence*.—"Legal Test of Responsibility;" "Trial and Conviction of Charles Anderson;" "Monomania and Testamentary Incapacity." *Miscellaneous*.—"Psychical Character of the English People;" "Hysterical Vagaries;" "Was Luther Mad?" "Extract from Report of British Association for Advancement of Science;" "Mortality of the French Army."

APRIL, 1868. No. 2. Vol. II.—I. "The Law of Human Increase, or Population based on Physiology and Psychology," by Nathan Allen, M.D.; II. "Carnomania," by Charles F. Taylor, M.D.; III.

"Education Anterior to Birth," by H. Courtenay Atwood, M.D., &c.; IV. "Aphasia," by Roberts Bartholow, M.D., &c.; V. "Remarks upon Dr. Storer's Paper, entitled 'The Law of Rape,'" by Simon Sterne, Counsellor-at-Law; VI. "A Case of Epilepsy due to Cerebral Anæmia," by William A. Hammond, M.D., &c. CONTEMPORARY LITERATURE. — "Transactions Association of Superintendents of Institutions for the Insane;" "Western Pennsylvania Hospital Report;" "Northern Ohio Lunatic Asylum Report;" "Butler Hospital Report;" "New York Institution for the Blind Report;" "Pennsylvania Hospital Reports," Vol. I.; "Dickinson on Albuminuria;" "Marcet on Chronic Alcoholic Intoxication;" "Von Niemeyer on Pulmonary Phthisis;" "Beaman on Epilepsy;" "Klob on the Pathological Anatomy of the Female Sexual Organs;" "Hewitt on the Diseases of Women;" "Bedford on Obstetrics;" "Thomas on the Diseases of Women;" "Murray on Emotional Nervous Diseases;" "Hardy on the Dartrous Diathesis;" "Siegle on Inhalation;" "Bouchardat's Annual Abstract;" "Winslow on Light." CHRONICLE. *Physiology and Pathology of the Brain and Nervous System.* — "New Method of Measuring the Volume of the Head;" "Insanity in Switzerland;" "Functions of Different Parts of the Brain;" "The Immediate Arrest of Convulsions;" "Case of 'Le Petit Mal,' with some Observations on the Responsibility of Epileptics;" "On the Connection between the Cerebro-Spinal System and the Sympathetic;" "Glossoplegia."

This is a new and extremely promising American Psychological Journal, edited by Dr. Hammond, late Director-General of the American Army Medical Department, from which office, it will be remembered, he was most unjustly expelled towards the close of the late American War by the machinations of a clique. We hail, with pleasure, the admission of so decided and universal a genius as Dr. Hammond into the ranks of the students of psychological medicine. Dr. Hammond's industry is truly marvellous: besides editing this Journal, there are no less than seven original articles from his own pen in the three first numbers; and it is difficult to pick up an American medical periodical without coming across his name.

It will be noticed with regret that No. 2 of Volume I. is absent, and we fear it has been lost in transmission through the post.

On Organic Infantile Paralysis, by Dr. HAMMOND. — The form of paralysis occurring in young children, which Dr. Hammond considers in the above memoir, is that which Rilliett and Barthez have described as the *Paralysie essentielle de l'enfance*, and to which Duchenne has given the name of *Paralysie atrophique graisseuse de l'enfance*. Duchenne considers this disease to consist essentially of atrophy of the muscles, attended with fatty degeneration. Dr. Hammond admits the former, but affirms that his experience leads him to the conclusion that the conversion of the muscular tissue into fat is not a

necessary accompaniment—he rather regards it as an affection in which the muscles become atrophied and lose their irritability without necessarily undergoing fatty degeneration. There cannot be any doubt, however, but that there is often fatty degeneration present, and Dr. Hammond admits as much.

Organic infantile paralysis, according to Dr. Hammond, is generally preceded by febrile excitement and pain in the back. This pain marks the seat of the disease of the spinal cord to which the paralysis of the muscles is due. What the exact character of this spinal affection may be cannot generally be determined. In one instance, where Dr. Hammond had the opportunity of making a post-mortem examination and of inspecting the condition of the cord, he found a cicatrix partially filled with a very small clot. The paralysis in this case was situated in the left lower extremity, and had begun four years previously. The lesion existed in the lower part of the dorsal regions, in the left anterior column. In some cases, doubtless, the membranes of the cord only are affected, and the condition may be one of simple congestion, or of inflammation, which generally appears in a chronic form. In others the substance of the cord is diseased. When the disease of the cord or its membranes wholly, or in part, disappears, so long a time has generally elapsed, that the contractile power of the muscles is lost, atrophy is begun, and fatty substitution is often going on. The affection is then entirely muscular. The nerves are not apparently impaired in the integrity of their functions; sensibility is not materially, if at all, lessened. There is simply mal-nutrition of the muscles, not due to any inability of the nerves to transmit impressions, but to the fact that from central disease the proper stimulus has not been sent through the nerves of the affected parts to the muscles for so long a time, that the latter, having lost the power of being excited by their natural motor influence, are incapable of recovering their tone and healthy condition.

Very early in the course of the disease the electric contractility of the affected muscles is abolished. When the poles of an induction coil are applied to a healthy muscle, contractions are produced. But very soon after the appearance of organic infantile paralysis this faculty begins to fade, and in the course of a few months is altogether lost in some of the muscles; not in all, for it generally happens that some one or more can be excited to contractions by strong induced currents. The power of the will is always lost over these muscles in which the electric contractility has disappeared.

Atrophy takes place on account of deficient nutrition, in consequence of the original spinal disease. A less amount of blood flows through the muscles of the affected limb than through those of a corresponding member which may be healthy. The muscles gradually waste away to mere cords of cellular tissue; the muscular tissue is absorbed, or, as is generally the case, is replaced by fat.

Along with these changes there is always a reduction of tempera-

ture in the affected parts. This sometimes amounts to as much as eight or ten degrees, though generally it is not more than five. If, under the use of appropriate means, improvement takes place, the first indication is shown by the return of the temperature towards the natural standard. It thus becomes important to have some means by which a very slight increase of heat may be noticed. For this purpose Dr. Hammond uses Becquerel's discs, which are placed in communication with a galvanometer. These discs consist of a very thin plate of copper, about the size of a half dime, soldered to a thin rod of bismuth. This latter is contained in a small tube of hard rubber, furnished with a handle. The discs are two in number. One is placed on the sound limb, and the other on the corresponding part of the paralysed limb. Both are in connection, by delicate silk covered wires, with the poles of a galvanometer. If the temperature of both limbs be the same, the needle of the galvanometer remains quiet; if either be warmer than the other the needle is deflected to the north or south, according as one or the other limb has the higher temperature. By this apparatus, very much less than the hundredth of a degree of temperature can be determined with absolute certainty.

It is also exceedingly important to ascertain the condition of the muscles as to fatty degeneration; for if this process has advanced to any considerable extent the difficulty of effecting a restoration is much increased. No means of arriving at a correct conclusion in regard to this point is at all comparable to a microscopical examination of the suspected tissue. Duchenne has devised a small trocar, which admirably answers the purpose of extracting a minute portion of the muscle without causing any more pain or disturbance than that induced by the prick of a needle.

Dr. Hammond illustrates in a series of woodcuts the progressive character of the morbid process occurring in the muscles of a part affected by organic infantile paralysis.

First. Oil globules are seen along the course of the fibrillæ, these latter being irregular and torn, and the transverse striæ may be noticed as becoming dim.

Secondly. The transverse striæ almost entirely disappear, oil globules are seen in large numbers, and fat globules become abundant.

Thirdly. The transverse striæ become lost entirely in a mass of oil globules and fat vesicles.

Fourthly. The fat becomes absorbed, no striæ can be seen, and only a mass of connective tissue remains.

This extreme result, however, only occasionally occurs and is necessarily incurable, but in the earlier stages of the disease, especially before there is any great organic change in the muscles, and when the chief symptoms are atrophy, loss of electric contractility, and reduction of temperature, Dr. Hammond has found it very amenable to careful and patient treatment. This consists in the use of general and local means. During the acute state there is nothing of so much efficiency

as rest in bed. Strychnine is useful, because it is a general stimulant to the nervous system, and a tonic to the muscles. Dr. Hammond uses the following prescription :

R. Strychniæ, gr. j.
 Ferri pyrophosphatis ʒß.
 Acid phosphorici dil. ʒß.
 Syrup : Zingiberis ʒiiiß.
 ʒj ter die S.

The immediately local means of treatment are the causing a greater amount of blood to flow through the diseased parts by heat, frictions, and kneading, and by the persistent use of electricity and active and passive exercise.

Case of Obscure Cerebral Disease, by E. R. HUN, M.D. of Albany. —The following brief *resumé* of a case of hysteria in a male, simulating obscure cerebral disease, may be deemed interesting from its rarity :—W. W. S., æt. 43, married, livery stable man :—Had convulsions twenty years ago, and four similar attacks up to 1863, but during last four years the character of the attacks have changed. Never had syphilis. Ap. 20, 1865, had severe fright, and soon after fell into following condition—was blind, deaf, and dumb, but retained consciousness ; wrote on slate what he wished to say, and when his hand was guided by another he understood what was written ; could open his mouth, but swallowed with difficulty ; very restless ; pulse slow and regular. During the night convulsions supervened : body and limbs became stiff ; head was thrown back in a tetanic spasm ; respiration was not affected nor face flushed, nor tongue bitten ; convulsions came on at intervals lasting five minutes ; never lost consciousness, and said the spasms gave him intense pain. At the end of twelve hours he regained his usual good health.

In October, 1865, had another attack, lost speech and hearing, but retained his sight. This lasted for several days, when he became convulsed, and on the remission of the convulsions, regained his normal condition.

March 14, 1867. Had a very severe attack—convulsive attacks very severe, beginning with a slight twitching, and ending in strong tetanic spasms ; all the muscles of the body were affected in turn, and so sudden and powerful were the changes from opisthotonos to emprosthotonos, that on one occasion four men who were holding him were thrown to the ground. Dr. Hun first tried æther and chloroform, and then a hypodermic injection of morphia, ultimately with a beneficial result, as the patient fell asleep.

March 21. Was up and walking about the streets, communicating with others by means of his slate and pencil ; could neither hear nor speak, but otherwise well.

March 26. Had four severe convulsions, after which he remained deaf and speechless until June 6th, when, after a severe head ache, he recovered his voice, but could not hear.

June 8. Attacked with severe head ache whilst at work; went to bed; had twitching of muscles; used large quantity of chloroform. In the evening commenced to talk, and soon began to hear, but became blind; went to sleep at 3 a.m.; woke up perfectly well. Had other similar attacks Sept. 16th, 1867, and November 16th, but since then has been perfectly well.

Dr. Hun's reasons for ascribing these attacks to hysteria are as follows: 1st—The patient retained consciousness during the attacks. 2nd—Had no spasm of glottis. 3rd—Did not bite his tongue. 4th—Had globus hystericus and dysphagia. 5th—Had increased urinary secretion after each attack. 6th—Had localised analgia, but not anæsthesia. 7th—The restoration to sight, speech, or hearing was always accompanied by convulsions.

On the Influence of the Maternal Mind over the Offspring during Pregnancy and Lactation, by DR. HAMMOND.—This is too able a paper for any brief notice to do justice to it. We must, therefore content ourselves with giving the conclusion at which the author arrives, referring our readers who may be interested in the subject to the paper itself for the facts and arguments with which Dr. Hammond backs up his opinion.

"From the facts and arguments," writes Dr. Hammond, "which I have brought forward, the conclusion is irresistible that the mental influence of the mother over her offspring, which begins whilst the germ is still in her ovary, is continued during pregnancy and lactation. The practical value of this physiological truth can scarcely be over estimated as regards its importance to the child, and is so obvious that I refrain from drawing an application which intelligent men and women can readily make for themselves."

PART IV.—PSYCHOLOGICAL NEWS.

NOTES ON THE FRENCH ASYLUMS FOR THE INSANE UNDER THE CARE OF RELIGIOUS.—The writer of the following notes, being anxious to enquire into the practical working of asylums for the insane as administered by religious, has lately visited several institutions of the kind in France, which, he believes, are as unknown to most English people as they were a short time ago to himself; and he therefore thinks that some account of the religious communities of that country which have devoted themselves to this extremely important work, may not be without interest for the readers of the *Month*. At first sight it seems strange, and very contrary to the ordinary state of French institutions, that in so many places religious establishments, not belonging to the public, should have the care, not only of private patients, but also of the poor who are placed there at the public charge. The reason is that, until the restoration of the Bourbons in 1815, scarcely any provision for the insane existed. At the revival of religion in France, several of the newly-founded or restored religious orders, in their earnest

search for fresh fields for their devoted charity, turned their attention to these neglected outcasts of humanity, and various asylums for their reception were established, especially in the north of France. The good thus done was immense; these poor lunatics being taken from the chains and cruelty which had too often been their lot at home, and placed in, at least, comparative comfort and freedom.

After several unsatisfactory attempts to ameliorate the condition of the insane poor, the French legislature passed an act in 1838, by which each department was compelled to provide for its lunatics. They were to do this, either by building new asylums, or by availing themselves of those already existing. The religious communities already engaged in this work were therefore in many instances encouraged and assisted to enlarge their establishments, the departments undertaking to pay just sufficient to defray the expense of keeping a patient, usually one franc a day, and hence arose the many large asylums of which I am about to speak.

So far as I know, only one religious order of men has undertaken the care of the insane. The "Brothers of St. John of God" do not confine themselves to this work; they have also in France reformatory and industrial schools, and hospices for the aged poor, and used formerly to have the care of several hospitals; but, on their return to France after the Revolution, in 1818, they found that the insane poor of Brittany were so terribly neglected, that they did not hesitate in devoting themselves to the improvement of their condition. There was a certain fitness in this, for St. John of God, as if to prepare him to be the founder of the Order which bears his name, had experienced in his own person the horrors of a medieval Spanish asylum, and had, among his works of charity, preceded our English and French physicians by 300 years in endeavouring to govern lunatics by kindness, instead of cruelty. The first house opened by the "Brothers of Charity," as they called themselves, was at Dinan in Brittany; but the present building was only begun in 1828, and has undergone repeated enlargement since that time, the new handsome church attached to the asylum being hardly yet completed. This gradual enlargement has unavoidably caused some confusion and irregularity in the arrangement of the different parts of the building, which is in every other respect one of the most perfect of the kind on the Continent—but it is the best proof of the well-merited success of the community in their labours. There are about 600 patients at present in the asylum, of whom the majority are pauper lunatics—the male patients of the two departments of Morbihan and Côtes du Nord; the remainder being divided into several classes, according to the rank in life of the patient, and the amount of attendance required for him. There are about 100 Brothers in the community, all of whom are employed, more or less directly, in the care of the insane, and the amount of watchfulness exercised by them over their charge day and night cannot be exceeded in the best managed asylums. The day-rooms and dormitories for all classes of patients are more cheerful than in most French institutions, having pictures, statuettes, and other ornaments in them, mostly of a religious character. All kinds of amusement are provided and encouraged, and I was glad to see many interested either in reading books and newspapers, or in playing at cards, chess, draughts, billiards, and (of course, being Frenchmen) at dominoes. More serious occupation is found for those whom it may benefit; the admirable farm and park are to a great extent kept in order by the patients; while others act as clerks or accountants. Yet the religious complain that their efforts in this way are greatly hindered by the laziness and untidiness natural to the Bretons, with whom they have to deal.

The Brothers of St. John of God have two other asylums in France; one at Lyons, of which I know very little, and one at Lille. This last is by no means so admirable or convenient a building as that at Dinan; but much more can be here done in the way of employing the inmates. Thus there is a theatre, a band of "orphéonistes," and of vocal performers, a kind of "estaminet," and even a fire-brigade, which has several times been of use in the town. It may be doubted

whether this last mentioned occupation is one which might not be very injurious to lunatics ; but of course the members of the fire-brigade are specially selected patients, and, at any rate, the religious assure me that they have never observed any evil results.

All the other religious communities in France who undertake the care of the insane are communities of nuns. In some few of these asylums female patients only are received (as at Saint Brieuc and Rennes) ; but in most of them there are also lay men-servants, who have the charge of male patients, the nuns only visiting the infirmary, and having the general direction of the house. Of all these establishments, the largest, and in some respects perhaps the best, is the "Bon Sauveur," at Caen. The good work was begun here in 1820 by an ecclesiastic of the town, and has been unusually prosperous. It now covers a very large space, near the glorious Norman church, built by William the Conqueror, in one of the most open suburbs of the town. The buildings are grouped, very irregularly, round a large open arcade or cloister, but are so completely disconnected that the "service" (for baths, meals, &c.,) must be unusually difficult. On the other hand, this plan has the advantage of making the establishment rather more cheerful. The house is extremely clean and well ventilated, and the patients (a good test of an asylum) quiet and orderly ; but the rooms are comparatively bare and comfortless to our English eyes, and there is no very great provision, apparently, for occupation or amusement. The average number of patients is 900, about half of whom are men. The majority are poor, placed in this institution by the department, but private patients are also received, for sums varying from £24 to £200 a year.

The highest class of patients (those paying £160 to £200 a year) are lodged in small cottages, of two or three rooms, situated in a very cheerful, well kept garden : this is one of the best distinctive features of the asylum. Another good point is, the absence of bars or gratings at the windows in the modern part of the building. The epileptic patients are kept in a house apart (not an uncommon arrangement in France), of one storey only, in order to prevent accidents. Extensive as this establishment is, and admirable as are many of the arrangements in it, two circumstances undoubtedly prevent its perfect efficiency. One of these is the large number of patients, which alone renders supervision more difficult ; but as if this were not enough, the community has also a school of about 200 deaf and dumb children, and a middle-school for some 100 girls, in the same enclosure, forming something more like a village or small town, than a single institution. Although there are 250 nuns and a large number of "gardiens," it is difficult to believe that sufficient unity of direction can exist under such conditions. The same order has also established three other asylums for the insane since its foundation in 1820, all of which are said to be very successful, but of which I have no personal knowledge.

At Pontorson, midway between Dol and Avranches, and at the foot of Mont St. Michel, is an asylum of a rather different character. This was founded not long before the Revolution, by private charity, the funds of which are still administered by a committee. The house is served by nuns, and "gardiens" for the male patients, of whom there are about 300, with 250 females. The greater part of the inmates are pauper lunatics, for each of whom the department pays one franc a day ; but private patients are also received, the highest class paying £100 a year. The house is extremely well kept, and occupation, of as varied a character as may be, is provided.

A modified form of mechanical restraint, by means of straight-waistcoats, clogs, &c., is employed (as far as I know) in all French asylums, whether under religious or secular management. Although I could obtain no very precise information as to the extent to which its use prevails, I am inclined to think it is employed less frequently in the asylums which adopt modern improvements than in those which keep to the old ways, and certainly most rarely in those houses which (like Dinan and Lille) have carried out most completely the means of occupying and amusing their patients.

This would be alone a strong argument against mechanical means ; but I confess that, although I left England a thorough believer in the principle of absolute non-restraint, as becomes a countryman of the illustrious Conolly, I was led, by the arguments used by the superintendents of French asylums, to doubt its universal applicability. Thus I am sure there is some truth in what is stated by Morel, one of the greatest authorities on insanity, that French lunatics are, *cæteris paribus*, more refractory than English, on account partly of their more excitable natural character, partly of the greater social equality prevailing in France ; and, if this difference exists, it is quite possible that straight-waistcoats and the like may sometimes be necessary. But there is not much weight in the ordinary argument, that mechanical restraint is less exciting to the patient than that exercised directly by attendants ; for the very essence of Conolly's system consists, not in the mere abolition of such coercion, but in the management of the patient by appealing to what remains of sanity in him and working on the better side of his nature.

The Superior of the Dinan asylum objected, with more plausibility, that certain excesses of the non-restraint system, which made some stir in England two years ago, were a "*reductio ad absurdum*" of the system itself ; I regretted extremely for the credit of our English institutions, that he had heard of these occurrences, but could not allow the validity of his reasoning.

Asylums managed entirely by religious seem to me to have the following advantages over those in public hands. In the first place, an energetic superior, being sole master, can carry out any alterations and improvements which his experience may suggest, while in the government institutions the medical superintendent is often checked and thwarted in his efforts by the "Commission de Surveillance," the members of which have often no practical knowledge of the needs of the insane. Secondly, admirable as is the spirit animating the great French physicians of this class, whose devotedness has done so much to improve the condition of their afflicted fellow-creatures, there must always be, in every public institution (especially if administered by the bureaucratic French) a certain unbending stiffness, which is only rarely found in a work managed by religious ; the difference which must exist between even the ideally perfect workhouse and a hospice of the Little Sisters of the Poor.

The employment of nuns in waiting upon the patients, which prevails generally throughout the government institutions, appears to me to be an unfortunate compromise, which is attended by a very evident evil of its own. In every such establishment, it will be found upon cross-examination, that the doctor is dissatisfied with the religious, looking upon them as not thoroughly subject to his authority : while the nuns, on their side, complain of the doctor's interference with their private rules and regulations. On the other hand, as far as I have had opportunity of judging, in the asylums I have described above, the doctor and nuns seemed good friends, and thoroughly content to work harmoniously together to the same end. This would go far to prove that the dissatisfaction in the public asylums (which must interfere greatly with their efficiency) is owing to the false position in which both the doctor and religious are placed by this "*imperium in imperio*" arrangement. The main point required about an asylum evidently is complete unity of government ; and this is best secured, either by employing only lay keepers under a medical superintendent, as in England, or by placing pauper patients in an establishment belonging entirely to religious, as in the asylums of which I have been writing. Supposing an active and searching system of government inspection to prevail, I am induced to believe that the latter of these alternatives is, in many respects, preferable to the former. I attach special importance to the more flexible character of asylums administered by religious, because I am convinced that the present practice of keeping patients of every class, and of all degrees of madness, in public or private asylums, must sooner or later be considerably modified ; and if the "cottage" system (a sort of modified Gheel) be some day introduced into England, I am sure that it can be best worked by religious or those trained by them.

—J. R. G.—(*The Month.*)

THE NEW METROPOLITAN DISTRICT ASYLUMS.—Since the re-election of its members, the Metropolitan Districts Asylums Board has reconstituted its committees. Owing to the gradual development of its work, it has been found convenient to arrange them somewhat differently. The Committee for Imbeciles having purchased two sites, one eighteen miles north of Charing Cross, and the other fourteen miles south, to accommodate the respective districts, and having finally settled the plans of the buildings, has been divided into two committees, one for each building, and additional members have been added. Mr. Wyatt takes the chairmanship of the Northern or Levensden Asylum, and Dr. Cortis has been chosen for the Southern one at Caterham.

The former Committees for Fever and Small-pox have been amalgamated, and, with additional members, have been formed into three committees, each of which will have the charge of hospitals for both diseases, to be erected on each site. The Committee for the Hospitals at Homerton has chosen Mr. Charrington for its chairman; Mr. Harvey is chairman for those at Hampstead; and Mr. Shaw Stuart presides over the Committee for the Southern District. Here a site has not yet been purchased, the district being so thickly built over that the committee have great difficulty in finding one suitable. These committees, with one for finance and another for general purposes, absorb all the members of the Board, sixty in number, and give to each an opportunity of contributing his quota to the general labour. So far, the actual progress towards building has been confined to the Committee for Imbeciles. As we stated in a former article, the plan which Messrs. Giles and Bevan sent in for Levensden was selected for both sites; and, in making this selection, the opinion not only of the committees but of the whole Board, was unanimous. The "Instructions to Architects," issued by the committee on inviting tenders, stated in a most admirable manner the wants to be supplied, and the spirit of these instructions has been well interpreted by the architects, who have worked out in a most clear and perfect manner every detail tending to the health, convenience of service, and comfort of the patients, combined with economy of arrangement in the administrative portions of the building.

A full description of the plans would be out of place here. No doubt the *Builder*, or some journal connected with architecture, will give proper illustrations of them. We may, however, mention that the system adopted is that familiarly known as "the pavilion system," each class of patients being provided with every convenience in a building *detached*, except by a one storey corridor, from all other buildings, and from the necessary kitchens and offices. The blocks for the ordinary patients are 105 feet long, 36 feet wide (internal dimensions), and of three storeys, each 13 feet in height. The two upper floors are appropriated as dormitories, each being divided down its centre by a partition some 6 feet in height, forming two parallel wards, each 18 feet wide, containing forty beds. The economy of this arrangement is obvious: the same walls enclosing four rows of beds instead of two. In buildings such as these, calculated to contain fifteen hundred patients each, the saving effected by this plan will amount to about £12,000 in each building. The lower floor of each block forms a day room for the patients sleeping above. All these day rooms and dormitories are warmed by fire places in the centre. The ventilation question is fully considered; abundance of light, air, and, above all, a cheerful, "sunny aspect" (as the architects call it) are given in every case. Each block has its necessary hat and cloak-rooms, lavatories, closets, sculleries, and other conveniences, and all open into airing courts with a southern aspect. There is also ample bathing accommodation.

The general plan of the buildings somewhat resembles the letter **H**, the male and female blocks (or rather their respective corridors) representing the two legs of the letter, whilst the transverse line is represented by the corridors connecting with the administrative block. This block runs in the centre between the two legs and parallel with them. It contains, in the front, the medical superintendent's residence, board-room, and offices; in the centre, the kitchens, sculleries, bakehouse, &c.; in the extreme rear, the laundry. All these are arranged with

every regard to convenience, saving of labour, and the proper supervision of such large establishments.

On both the male and female sides there is an infirmary block the same length as the others, but only 22 feet wide. Here each patient will have about 900 cubic feet when the wards are full. In the dormitories they will have about 550. The infirmary for infectious diseases is entirely detached and removed to a considerable distance from the main building. Here the patients have from 1750 to 2000 cubic feet. A mortuary and a *post-mortem* room have not been forgotten. The chapel is capable of containing six hundred persons, and, in addition to the buildings already described, there are separate residences for the chaplain, the steward, the matron, and resident engineer. Apartments for two assistant medical officers are provided in the administrative block. The exterior plan is the same in both cases, and, as it should be, pleasing but inexpensive in character. No attempt is made at ornament, and the modern Gothic, or stuccoed glories of the present age, carefully eschewed. Altogether, we may fairly congratulate the Board and the public upon the now not very remote prospect of possessing buildings admirably suited to their purpose, and calculated to meet one great want of our metropolitan parishes. The cost of the buildings alone, as estimated by the architects, is about £60 per patient. This, if not exceeded, will be from 40 to 50 per cent. less than the average cost of asylums hitherto constructed.

Judging the Metropolitan Asylums District Board by its proceedings in reference to these buildings, we think we may also congratulate the public (and the Poor-Law Board) on having secured the services of gentlemen both able and willing to effect energetically and judiciously the important objects for which they were elected.—*British Medical Journal*, May 2.

Books, Pamphlets, &c., received for Review.

Chapters on Man, with the Outlines of a Science of Comparative Psychology.

By C. Saniland Wake, Fellow of the Anthropological Society of London. London: Trübner and Co., 1868. p.p. 343. *See Part II., Reviews.*

Review of the History of Medicine among Asiatic Nations. By Thomas A. Wise, M.D., F.R.C.P. Edin., late Bengal Medical Service. 2 vols., 8vo. London: John Churchill and Sons, 1867.

Jerrold, Tennyson, and Macaulay, with other critical Essays. By James Hutchinson Stirling, LL.D., author of the Secret of Hegel. Edinburgh: Edmouton and Douglas, 1868.

Miscellaneous Contributions to the Study of Pathology. By John W. Ogle, M.D. Oxon, Physician and Lecturer on Pathology, St. George's Hospital. (Reprint from British and Foreign Medico-Chirurgical Review, January and April, 1868.) *See Part II., Reviews.*

First Principles of Medicine. By Archibald Billing, M.D., F.R.S., &c., &c., &c. Sixth edition. London: Bell and Daldy. 1868. p.p. 714. *See Part II., Reviews.*

Fortschritt? Rückschritt! Reform-Ideen des Herrn Geh. Rathes Prof. Dr. Griesinger in Berlin auf dem Gebiete der Irrenheilkunde beleuchtete von Dr. Heinrich Laehr, Königlichem Sanitätsrathe, Ritter des Rothen Adlerordens vierter Klasse, Director des Asyles Schweizerhof, Redacteur der Allgemeinen Zeitschrift für Psychiatrie, ständigem Secretair und Vorstands-Mitgliede des Vereins deutscher Irrenärzte, z. Z. Vorsitzenden des psychiatrischen Vereines zu Berlin, Mitgliede der medic.-psychol. Gessellschaft und der Gesellschaft für Natur- und Heilkunde zu Berlin, der Med. psychol. Association zu London, der Gesellschaft der Aerzte zu Wien, der Gesellschaft für Natur- und Heilkunde in Dresden. „— wer über solche praktische Einrichtungen nach Sopha-Studien urthelen will, dessen Stimme, und möge sie noch so laut abgegeben werden, ist nicht zu achten.“ *Griesinger*. Berlin, 1868. (*Pamphlet.*)

Der Umschwung in der Psychiatrie nach dem Vorworte zu Griesinger's Archiv für Psychiatrie und Nervenkrankheiten von Dr. Brosius in Bendorf. (*Pamphlet.*) See the subject treated in Part II., Reviews.

Charles Mittermaier, ses études sur La Peine de Mort, La Responsabilité et l'Expertise Médico-Légales des Aliènes Dans Les Prisons et Devant Les Tribunaux par A. Brierre de Boismont, Docteur en médecine, Membre titulaire des Sociétés médico-psychologique, de médecine légale et d'anthropologie de Paris, etc. (Extrait des Annales Médico-Psychologiques 4. Serie, Tome xi., Mai, 1868.)

Ueber Irrenpflege und Irrenanstalten. Von Dr. E. Cyon aus Petersburg. (Separatabdruck aus Virchow's Archiv für pathologische Anatomie und Physiologie und für klinische Medicin. Zweiundvierzigster Band.)

The Freedom of the Will, Stated Afresh. By E. M. Lloyd. Longmans. 1868. (*Pamphlet.*)

*Jamne vides igitur, quamquam vis extera multos
Pellat, et invitos cogat procedere sæpe
Præcipientes rapi, tamen esse in pectore nostro
Quiddam quod contra pugnare obstareque possit?*

LUCRETIIUS.

On the Desirability of National Education for the Deaf and Dumb Poor. By James Hawkins, Author of "The Physical, Moral, and Intellectual Constitution of the Deaf and Dumb." London: Longmans, Green, and Co. 1868. (*Pamphlet.*)

A Lecture on the Pathology and Treatment of Rigors. By George Johnson, M.D., F.R.C.P., Physician to King's College Hospital; Professor of Medicine in King's College; Etc. (*Reprinted from "The British Medical Journal."*)

Notes on the History, Methods, and Technological Importance of Descriptive Geometry, Compiled with Reference to Technical Education in France, Germany, and Great Britain. By Alexander W. Cunningham. Edinburgh: Edmonston and Douglas. 1868. (*Pamphlet.*)

Vaccination Impartially Reviewed. Being one of the Prize Essays sent in to the Ladies' Sanitary Association. By Ferdinand E. Jencken, M.D., M.R.C.P. London: John Churchill and Sons, New Burlington Street. (*Pamphlet.*)

Irritability: Popular and Practical Sketches of Common Morbid States, and Conditions bordering on Disease; with Hints for Management, Alleviation, and Cure. By James Morris, M.D. Lond., Fellow of University College. John Churchill and Sons, New Burlington-street, pp. 114.

Clinical Lectures and Reports. By the Medical and Surgical Staff of the London Hospital. Vol. IV., 1867-8. John Churchill and Sons, New Burlington-street. pp. 525.

Appointments.

T. B. E. FLETCHER, M.D., has been appointed Physician to the Midland Counties Idiot Asylum, Knowle.

GEORGE WALLINGTON GRABHAM, M.D. Lond., has been appointed Resident Physician and Medical Superintendent of the Asylum for Idiots, Earlswood.

R. HULLAH, M.R.C.S.E., has been appointed Assistant Medical Officer to the City of London Lunatic Asylum, Stone, Kent.

The REV. SAMUEL PARIS HILL has been appointed Chaplain to the Oxford Asylum, Littlemore, vice Rev. H. L. Walters, resigned.

J. J. JACKSON, M.R.C.S.E., has been appointed Superintendent and Medical Officer of the Jersey Lunatic Asylum.

J. H. KIMBELL, F.R.C.S.E., has been appointed Medical Officer to the Midland Counties Idiot Asylum, Knowle.

C. LEWIS, M.R.C.S.E., has been appointed Assistant Medical Officer to the Gloucestershire Lunatic Asylum, near Gloucester, vice Arthur Strange, M.D.

W.G. MADDOX, M.R.C.S., has been appointed Assistant Medical Officer to the Criminal Lunatic Asylum, Broadmoor, Berks, vice A. J. Newman, M.R.C.S.E., resigned.

CHARLES W. CARTER MADDEN MEDLICOTT, M.D. Edin., has been appointed Medical Superintendent of the Somerset County Asylum, Wells, vice Robert Boyd, M.D. Edin., retired on a superannuation allowance.

WM. JOSEPH MARSH, M.R.C.S., has been appointed Assistant Medical Officer to the Oxford Asylum, Littlemore.

J. C. RUSSELL, M.B., late Resident Surgeon of the Lancaster Infirmary, has been appointed Assistant Medical Officer to the Lancashire Lunatic Asylum, near Lancaster.

W. RICE, L.R.C.P. Ed., has been appointed Assistant Medical Officer to the County Lunatic Asylum, Prestwich, Manchester.

ARTHUR STRANGE, M.D. Edin., to be Assistant Medical Officer to the Chester County Asylum.

E. SWAIN, M.R.C.S., L.S.A., has been appointed Assistant Medical Officer to the Brookwood Asylum, Surrey.

G. C. SANDERS, M.R.C.S.E., L.S.A., late Assistant Medical Officer to the Asylum for Idiots, Earlswood, has been appointed Assistant Medical Officer to the Lunatic Asylum, Kingston, Jamaica.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Annual Meeting of the Medico-Psychological Association for 1868 will, by permission of the President and Fellows, be held in the Royal College of Physicians, under the Presidency of Dr. Sankey, on Tuesday, the 4th of August.

Notices of business and communications for the meeting to be forwarded to the Honorary Secretary, 37, Albemarle-street, London, W.

Rules of the Medico-Psychological Association.

(Revised at the Annual Meeting, held at the Royal College of Physicians July 13th, 1865.)

1. *Name.*—That the name of the Association be the “Medico-Psychological Association.”

2. *Objects.*—That the objects of this Association be the improvement of asylums and hospitals for the insane; the acquisition and diffusion of a more extended knowledge of insanity and its treatment; and the promotion of a free communication on these subjects between the Members.

3. *Members.*—That the Association consist of medical officers of hospitals and asylums for the insane, public and private, and of legally qualified medical practitioners interested in the treatment of insanity.

4. *Election of Members.*—That the election of Members take place by ballot at the annual meetings, a majority of two-thirds of those present being required for the election of each candidate.

5. *Annual Subscription.*—That each member pay an annual subscription of one guinea, the subscription to be due in advance on the 1st of July in each year; the accounts to be made up to the 30th of June.

6. *Arrears.*—That any Member in arrear of his subscription more than twelve months after the expiration of the year for which it is due, and more than three months after application by the Treasurer for the same, shall cease to be considered a member of the Association; provided no reason satisfactory to the annual meeting be assigned for the non-payment of such arrears.

7. *Expulsion.*—That a general or special meeting shall have the power, by a majority of three fourths of those present, to remove from the list of the Association any Member whose name is submitted by the Council with that object.

8. *Honorary Members.*—That gentlemen, whether of the medical profession or otherwise, who are distinguished by the interest they take in the treatment of the insane, be eligible for election as honorary Members, the election to be by ballot, as in the case of ordinary Members; at least a month's notice having been given of the names to be proposed to the Secretary, who will append them to the circular by which the Annual Meeting is summoned. The recommendation for each honorary Member must be signed by at least six Members of the Association.

9. *Officers.*—That the Officers of the Association consist of a President, Treasurer, General Secretary, a Secretary for Scotland, a Secretary for Ireland, an Editor or Editors of the Journal, and two Auditors, who shall be elected at each annual meeting; balloting papers being used in such election for the appointment of President.

10. *President.*—That the President for the year enter on his duties at each annual meeting, and that his successor be appointed before the meeting separates.

11. *Other Officers.*—That the Treasurer and Secretaries, Editor or Editors of the Journal, and one Auditor, be eligible for re-election.

12. *Council.*—That the Officers of the Association, with the President elect, the President of the past year, and eight other Members, do constitute the Council of the Association. The eight ordinary Members shall be appointed by the annual meeting, two of the members retiring by rotation each year, but being eligible for re-election.

13. *Annual Meetings.*—That an annual meeting of the Association be held yearly in July, or the first week of August; such meetings to be called both by advertisement and circular to each Member, giving at least four weeks' notice.

14. *Special Meetings.*—That the President, on the requisition of fifteen Members of the Association, shall have authority to call a special meeting, of which notice shall be given in the usual way, and at which only the question or questions stated in the requisition shall be discussed and determined.

15. *Place of Meeting.*—That the annual meeting be held in London, or, if so agreed at the preceding meeting, in Scotland or Ireland, or in some provincial town or city.

16. *Adjournment of Meetings.*—That the annual or special meetings may be adjourned to a second or third day, if a majority of those present so decide.

17. *Order of Business.*—That after the minutes of the preceding meeting have been read, and the ordinary business transacted, reports from Members appointed to prepare the same, and other papers and communications shall be received, and free discussion invited on all topics connected with the objects of the Association. Each Member to be allowed to introduce one Visitor at the meeting. A report of the proceedings of each meeting to be published in the Journal of the Association.

18. *Finances and Journal of the Association.*—That after the payment of the ordinary expenses of the Association the surplus funds shall be appropriated in aid of the Journal; the accounts of the Editor or Editors of the said Journal and of the Treasurer of the Association shall be examined by two Auditors, who shall report to each annual meeting. Each ordinary Member of the Association to be entitled to receive the Journal without further payment.

19. *Alteration of Rules.*—That any Member wishing to propose any alteration in or addition to the rules, do give notice of his intention at a previous annual meeting, or two months' notice to the Secretary, who shall inform each Member of the Association of the same in the circular by which such meeting is called.

THE JOURNAL OF MENTAL SCIENCE, OCTOBER, 1868.

[Published by authority of the Medico-Psychological Association.]

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The Journal of Mental Science.

English books for review, pamphlets, exchange journals, &c., to be sent either by book-post to Dr. Robertson, Haywards Heath, Sussex; or to the care of the publishers of the Journal, Messrs. Churchill and Sons, New Burlington Street. French, German, and American publications may be forwarded to Dr. Robertson, by foreign book-post, or to Messrs. Williams and Norgate, Henrietta Street, Covent Garden, to the care of their German, French, and American agents; Mr. Hartmann, Leipzig; M. Borrari, 9, Rue de St. Pères, Paris; Messrs. Westermann and Co., Broadway, New York.

Authors of Original Papers wishing *Reprints* for private circulation can have them on application to the Printer of the Journal, Mr. Bacon, Lewes, at a fixed charge of 30s. per sheet per 100 copies, including a coloured wrapper and title-page.

The copies of *The Journal of Mental Science* are regularly sent by *Book-post* (*pre-paid*) to the ordinary Members of the Association, and to our Home and Foreign Correspondents; and Dr. Robertson will be glad to be informed of any irregularity in their receipt or overcharge in the Postage.

The following *EXCHANGE JOURNALS* have been regularly received since our last publication:—

Annales Médico-Psychologiques; Zeitschrift für Psychiatrie; Vierteljahrsschrift für Psychiatrie in ihren Beziehungen zur Morphologie und Pathologie des Central Nervensystems, der physiologischen Psychologie, Statistik und gerichtlichen Medicin, herausgegeben von Professor Dr. Max Leidesdorf und Dozent Dr. Theodor Meynert; Archiv für Psychiatrie und Nervenkrankheiten, in Verbindung mit Dr. L. Meyer und Dr. C. Westphal, herausgegeben von Dr. W. Griesinger; Correspondenz Blatt der deutschen Gesellschaft für Psychiatrie; Irren Freund; Zeitschrift für gerichtliche Medicin, öffentliche Gesundheitspflege und Medicinalgesetzgebung, Wochenschrift für Aerzte, Wundärzte, Apotheker und Beamte; Journal de Médecine Mentale; Archivio Italiano per le Malattie Nervose e per le Alienazioni Mentali; Medizinische Jahrbücher (Zeitschrift der K. K. Gesellschaft der Aerzte in Wien); the Edinburgh Medical Journal; the American Journal of Insanity; the Quarterly Journal of Psychological Medicine, and Medical Jurisprudence, edited by William A. Hammond, M.D. (New York); the British and Foreign Medico-Chirurgical Review; the Journal of Anatomy and Physiology, conducted by G. M. Humphrey, M.D., F.R.S., and Wm. Turner, M.B., F.R.S.E.; the Dublin Quarterly Journal; the Medical Mirror; the British Medical Journal; the Medical Circular; The Practitioner, a monthly Journal of Therapeutics, edited by F. E. Anstie, M.D., and Henry Lawson M.D.; the Journal of the Society of Arts. Also the Morningside Mirror; the York Star; Excelsior, or the Murray Royal Institution Literary Gazette.

We are compelled to defer to the January number the conclusion of Dr. Westphal's paper '*On the present state of our knowledge regarding General Paralysis of the Insane*,' translated by James Rutherford, M.D., Edin., as also a notice of the '*Lunacy Blue Books*' of the year.

THE JOURNAL OF MENTAL SCIENCE.

[Published by Authority of the Medico-Psychological Association.]

No. 67. NEW SERIES, No. 31. OCTOBER, 1868.

VOL. XIV.

PART 1.—ORIGINAL ARTICLES.

The Medico-Psychological Association: The President's Address for 1868. By W. H. O. SANKEY, M.D., Lond., F.R.C.P.

(Read at the Annual Meeting of the Medico-Psychological Association, held at the Royal College of Physicians, August 4th, 1868.)

GENTLEMEN,—On assuming the office of President my first duty is to thank you for the compliment you have paid me in electing me. The honour is one that I had not aspired to; but it is therefore by no means the less gratifying, and being the spontaneous act of the association it deserves from me a more than ordinary expression of acknowledgment.

There are but few rewards and distinctions within the reach of the members of our specialty. In connecting ourselves with lunacy we are almost compelled to share the seclusion of our patients. Certainly we have to renounce our chances of many posts³ of professional distinction; indeed, I had (so far as further advancement is concerned) looked upon my professional career as at an end.

To be the President of this Society is the last and highest point to which I can attain. The honour is the greater, because conferred upon me by my professional brethren, and especially because it is conferred by members of my own specialty—by those who are in the best position to know me. There are honours and titles which a man can obtain by work and by study, as by undergoing various professional examinations. Such honours we look upon as legitimately

earned, but far more gratifying are the honours bestowed voluntarily; these are the marks of the approval of those whose approval we always hope for.

Such approval I feel is conveyed in my election to be your President for the ensuing year. If I over-estimate the honour, at least let my estimate be the measure of my thanks to you.

Gentlemen, I have been a member of the association for thirteen or fourteen years. I fear I must confess to have been a very unworthy one, for beyond contributing an occasional paper to the journal I have done but little, if, indeed, anything, to advance its interests. This has not been altogether my fault. I have always been ready to assist the association in any mode known to me; but I must candidly confess that I have not known what else I could do.

It has appeared to me that hitherto the chief functions of this association (so far as I could understand them by reading its rules and the reports of its meetings) have consisted in publishing a quarterly periodical. If the majority of the association wills that such should be the principal or sole object, I should be sorry to interpose my individual opinion upon the subject; but I think I have perceived indications of late of a growing desire on the part of several members for some departure from this state of affairs. There are indications, I think, of some feeling of the sort upon our agenda paper of to-day. And as there has been no meeting of the Council during the past year, the movement I presume is from spontaneous efforts of individual members. The change will require our gravest consideration. I should be sorry that any measure should be adopted without mature deliberation. These suggestions indicate a desire upon the part of the proposers to extend the usefulness of the association, and such aims have my warmest sympathy.

I do not think it would be at all a profitable expenditure of our time to enquire if the association has accomplished all the ends for which it was founded. I would by no means undervalue the amount of good it has already effected. Nevertheless, I believe that it is competent to achieve much more than it has yet accomplished, and that we may look to the future as well as the past in estimating its utility.

There are, I think, very cogent reasons for the existence of this association, and the necessity for such an organised society yearly becomes more urgent. In these days every class of men having common interests combine for mutual as-

sistance. *We* have not only common interests, but our special occupation isolates us very much, not only from the public and from the general body of the profession, so that our interests, and I may add, our grievances, at all events our duties and our studies, are all peculiar. We seem to be very Levites among our medical brethren. We cannot look to them for support, for they do not understand us. Unless we place our own case before the public it is more than probable it will remain unknown.

We are not, I think, likely to degenerate into an empty debating club, nor form a kind of trades-union for our own interests only. Such combinations occur only among the ignorant; they belong to a kind of embryonic state of civilization. We shall not overlook the fact that a specialty is but a section of the medical profession, as the profession is but a section of the nation at large. On the contrary, we shall feel that, by bringing to light many anomalies which injuriously affect our section, we are working by a division of labour for the general good.

I think the association now numbers among its members every person of authority on the subject of lunacy, so that the moral force that we could bring to bear upon any subject connected with it would be very great.

There are many questions which have been brought forward at previous meetings which remain unsettled still. There are recommendations which remain a dead letter; there are many anomalies known to us which it is in our power to point out, and for which we may be able to suggest the remedy; there are many difficulties, scientific, social, or political, which we could by a few discussions help to solve, all of which fall within the legitimate scope of such a society as this.

There are questions having an immediate influence on the welfare of the insane. There are other questions which affect ourselves primarily and the insane, therefore, in a more indirect manner. I will not occupy your time further than to enumerate a few examples of these evils and anomalies.

There are many anomalies of the law, and one is that there should exist two separate Boards of Commissioners in Lunacy, one almost ignoring the existence of the other, yet both directly under the same Officer of the Crown, the Lord Chancellor. There is great waste of time, energies, and labour in such an arrangement.

It is surely an anomaly that the process which is deemed

sufficient to place an insane person under confinement, and to control his personal liberty, should not be proof that the person is a lunatic in the eye of the law, but that an entirely new, often a harassing enquiry, must take place to prove a fact already received and acted upon by another set of law officers.

There are many evils arising out of the local government of asylums. The complete and separate jurisdiction of each county over its own county asylum leads often to great inconveniences and hardships, both to the insane patients as well as to the officers and servants. The entire subject of pensions is injuriously affected by that local and distinct jurisdiction. As this matter will be brought before you this afternoon I will not now enter upon the subject.

One mode in which this local jurisdiction acts prejudicially is that it stands in the way of the promotion of the officer of one asylum to a larger without great personal sacrifice. Surely it would be to the interest of the insane that the larger asylum should have a superintendent who had gained experience in one of smaller size. There should be the possibility of promotion without the sacrifice of previous services.

Another great evil or anomaly in the operation of the law is the complete irresponsibility of the governing bodies of the public asylums. The committees of visitors, it is well known, are virtually self-elected, and have absolute and uncontrolled power over everything connected with the asylum. In the case of an injustice towards an officer there may exist an appeal to the general body of magistrates, but this is a purely nominal privilege.

It is supposed—but I think erroneously—that the surveillance of the commissioners of lunacy would be sufficient to adjust the differences arising from too great or improper use of the power which is entrusted to the visitors; for if a committee of visitors chose to interfere with the medical treatment, if they chose for example to insist upon the use of mechanical restraint, even in such a case there is little doubt that the commissioners would have no real power to interpose their authority.

They would have the power to report, and their report would mean a dormant document. They might perhaps have the power to prosecute in the case of actual cruelty, but the support they receive from the law generally, often renders this process simply nugatory.

It is not the place or time to make suggestions of a remedy for this state of things. The facts pointed to show, I think, that much is left undone which might be done, and also that there is much waste of power, much of the circumlocution of law, which renders a great deal, that might be useful, useless—much, that might be full of good fruit, totally barren.

Another great evil which falls upon us from the state of the law, and of which we have perhaps more than our just proportion, is the animadversion cast upon the medical profession on account of the diversity of opinion elicited upon cases of insanity brought before the legal tribunals. The public expect, they always anticipate, that in every case in which the question of insanity occurs in a Court, there will be an array of medical opinion on either side; the lawyers, in fact, adjust the beam by placing one doctor to counterpoise the weight of another on the opposite side. It has been said that a doctor once met the solicitor in a case with the remark—"It is fortunate you came to me, or I should have been called against you." This is, doubtless, mere scandal, and at all events if it occurred at all, any other professional man might be placed in the position of the doctor, as, for instance, a lawyer, whether as judge or arbiter, a surveyor, an architect, a valuer, in fact, any witness who was called upon as a skilled witness, to express an opinion or adjudicate on any question, and on which, in order to arrive at a conclusion, it was necessary to weigh evidence pro and con. The story instanced by Dr. Walshe, in his Address on Medicine before the British Medical Association, is an illustration of the same fact; the twelve judges met to form an opinion on a point of law; six were of one opinion and six of the opposite; but the reasons of some for taking one view of the question were precisely those of others for taking the contrary.

We have not much to complain of, then, in the badinage which has been used toward us, since so many share in it. I think there is one point, however, in which we might join with skilled witnesses generally, and apply for an amendment in the practice of the courts. I think it should be accorded that all skilled witnesses who are called upon to express an opinion on facts submitted should be exempt from cross-examination. I think there are sound reasons why this should be so. A skilled witness on any question gives merely his opinion. Now an opinion is arrived at by a very complex process. It is formed by a slow and careful comparison of an infinity of details; these details are themselves carefully weighed and estimated, and the consideration of them occupies weeks, and

it may be months of mental work ; indeed it is pretty certain that the whole of a man's previous experience must bear upon each of his individual judgments. It is quite impossible that a witness could accurately describe the whole chain of reasoning and the value he may place on each item of evidence presented to him in the scope of an answer to a curt question, and under a rapid cross-examination. It is well known, too, that the whole process of cross-examination is mere trickery, a carefully laid pitfall ; it cannot elicit truth, and is as often intended to confound it. Time will not permit me to dwell upon this subject, but it is one which, in my opinion, might be well investigated by such an association as ours.

I am led naturally from the subject of skilled witnesses to that of the dogma deliberately formed by skilled lawyers as a definition of insanity. I need not quote this dogma ; the whole association, I think, will join in an unanimous opinion that it is wholly unsatisfactory as a definition of insanity as we meet with it in practice.

The existence or non-existence of monomania, and what is meant by the term, and what relation it has to legal medicine, are other questions which this association might assist in elucidating.

To account for the state of uncertainty that exists on these and many other points, and the differences of opinion which medical men entertain in connection with them, and which are frequently very invidiously exposed in our courts of justice, there is, I think, another cause in operation which ought not to be passed unnoticed by me.

Is it not a fact that the subject of insanity is ignored—is comparatively untaught in our medical schools, and that a knowledge of the disease is rarely met with in the profession at large ?

I think it will be doing no more than our duty toward the insane if we press this matter again upon the authorities. From the earliest period of medical teaching in London there have been numerous efforts made to spread a knowledge of mental disease by members of our specialty. Lectures have been given at nearly every metropolitan asylum ; nearly every medical officer connected with these institutions has at one time or other made some attempt in this direction ; but it must be confessed none have met with the encouragement the subject deserves.

Our colleague, Dr. Maudsley, was the means, a few years ago, of calling the attention of the Senate of the University of London to this matter, who showed their opinion of

the importance of the subject by issuing certain regulations, in which they directed the attention of the candidates for their degrees in medicine to the study of mental diseases, and advised an attendance at a recognized school in which clinical instruction on the subject was given. And the Senate recognized Bethlehem Hospital, St Luke's Hospital, and Camberwell House Asylum as Institutions for the purpose, and they agreed to accept three months' attendance at either of these as an equivalent to three months' medical practice in a general hospital. It is also understood that the attention of the examiners in medicine was called to the subject of testing the candidates on their knowledge of mental disease. In consequence of this movement several of the larger medical schools have appointed lecturers on mental disease; but, notwithstanding all these efforts, I fear it must be confessed that but little effect has been produced upon the mass of the medical students.

It is evident that until a knowledge of mental disease is absolutely required, and attendance upon lectures in recognised schools is made as compulsory as attendance on lectures on other subjects—not only from candidates for university distinction, but from all students—little advance will be made. The subject, I think, might be fairly brought by us, not only to the attention of the different examining boards, but also before the medical council.

I must apologize for dwelling upon this question, which I deem to be one of much importance, and one in which our association is competent to render great service; but I am anxious to draw attention to the arguments which are employed to oppose the introduction of the study of psychological medicine into the medical curriculum.

It is said that there are already subjects enough required of the students. I would ask if this is a fair argument why one of the most important should be omitted?

It is argued that the study of mental disease is a part of the general subject of medicine, and should be treated by the professor of medicine; the same may be said of very many surgical diseases now committed to the professor of surgery, or the same may be said of all puerperal diseases which are given over to the professor of midwifery.

The principles of medical, surgical, or obstetrical pathology must be one, and yet are consigned to different teachers. No surgical disease, no obstetrical accident, can be of more consequence than mental disease, and as far as the welfare of the subject goes must be of far less. If all obstetrics be taken out

of the hands of the physician or surgeon it can be only on the grounds that midwifery has been made a special study. *And so has insanity.* But while midwifery has become a specialty by the election of its practitioners, the special study of mental disease is *an actual necessity.* The subjects of it are forcibly separated from the rest of the population, and the study of the disease must be committed to special physicians in special institutions.

It has become the fashion to inveigh against all specialties, and every specialist joins in the general condemnation, but claims exemption for his own. Now all the examining boards require of students an attendance on the specialties of surgery and midwifery, and even medical jurisprudence. We hear of late, also, that a special attention on vaccination is to be required, but mental disease remains simply as a subject which may or may not be studied, according to the fancy of the student.

There seems to be no sound reason why the professor of medicine should not treat of puerperal disease and the diseases of children, or that the surgeon should not teach the art of vaccinating, tooth-drawing, &c., but there is a strong reason why the professor of medicine should not be expected to teach mental disease, namely, because he has no means of obtaining a personal knowledge of it. He does not treat the disease in his wards, and it is not too much to say he usually has very crude ideas upon the subject.

Whether considered with respect to its frequency, to its legal and social relations, and especially with respect to its power of being transmitted from generation to generation, no disease has a greater claim upon the attention of the physician or the politician than lunacy.

While pointing out thus briefly many modes in which it seems to me we might in future jointly work toward a common end, I have not yet alluded to that which hitherto has engrossed the chief energies of the members of our association, viz., "the extension of the knowledge of the disease," which has been accomplished through the means of its journal. There can be little doubt that the journal has greatly extended the knowledge of mental diseases, and by the value of its papers, and the amount of original investigation communicated through its pages, it has gained for itself a high position. But there is no reason why this should be the only, or even the chief work, of an association so well manned and organized as this.

Experiments to determine the precise effect of Bromide of Potassium in Epilepsy. By T. S. CLOUSTON, M.D. Edin., Medical Superintendent of the Cumberland and Westmoreland Asylum, Carlisle.

What asylum physician is there, who, in prescribing drugs for his patients, has any approach to a feeling of certainty that these drugs will have the effect he anticipates? I refer more particularly to sedative drugs. Is there any such physician who will lay down a rule by which it may be known whether opium, hyoscyamus, Indian hemp, or bromide of potassium is the best medicine to be given in a particular case? We have the statements of individual authors in regard to the right mode of giving some of these drugs, but after all those are merely opinions founded on most limited observations, and lack the exactitude of research, and the numerical basis on which alone scientific truth is founded. It is no wonder that many of our specialty are sceptics in regard to medical treatment in insanity, when we generally find that the advocates of particular medicines, or of special modes of administering them, merely give us "selected" cases. To anyone who has read something of the history of medicine, it seems a mere waste of words to advocate any new treatment of a disease, except it is clearly shown that the spirit of fairness and scientific impartiality has regulated the observations on which the would-be conclusions are founded. And as for discussing and quarrelling over the general question of the good effects of medical treatment *versus* moral treatment, surely the energy and acuteness so expended would be employed to far more purpose in observing and recording facts, so that we might have something certain on which to base an argument on the one side or the other. And by observing facts, I do not mean vaguely noticing the course of certain random cases subjected to unsystematic and desultory treatment, and accepting the confused impression of the result left on the mind as scientific truth, on which an argument may be founded or a boon to humanity conferred. It is surely possible for the physicians of asylums to combine their opportunities for observing the treatment of disease in one vast and systematic effort, all working on the same plans, and all adopting the same conditions. What accuracy might we not acquire in

our notions as to the effects of morphia given in melancholia, if the drug was tried in the case of every melancholic patient in all our asylums for a year, and an accurate record of the results drawn up? The idea may seem in many respects chimerical and absurd, but it seems questionable if much accuracy in therapeutics will ever be attained until something of the kind is done. There is no single man who has opportunity sufficient to solve such a problem, except by careful experiments extending over years, and we know how difficult it is for a physician to continue careful experiments over long periods. And surely this exact, scientific, and statistical age will not allow the present state of utter doubt to continue much longer without making at least an effort to dispel it. We require to know the full and true result of giving drugs in every case, and not merely in a few favourable cases which may be natural recoveries.

Possessed with these ideas, and feeling conscience-smitten oftentimes at the uncertain way in which I gave drugs, and thinking that the action of the bromide of potassium in epilepsy, and that of opium in mania, afforded as simple fields of observation as could be found, I performed some experiments with those medicines. In regard to the bromide of potassium, my objects were to ascertain its precise effect: 1st—On the number of the fits. 2nd—On the character of the fits. 3rd—On the patient's mental condition between the fits. 4th—On the patient's weight, temperature, pulse, and general health. 5th—On the different varieties of the disease. 6th—To ascertain the most effectual dose for therapeutic objects. 7th—To determine the limits to which it may be pushed as to time and quantity. 8th—To find out the length of time to which its effects extend when it is stopped. To effect these objects I had all my male epileptic patients—29 in number—weighed, and took their morning and evening temperature and pulse every week for a month, having the number of fits recorded and the general mental state. This was when on their ordinary diet, and taking no medicine. I then gave them all bromide of potassium three times a day, one dose after each meal. I began with five grain doses, being fifteen grains per day. I gave that quantity for three weeks, increasing the dose at the end of that time to ten grains, continuing this for three weeks, and increasing the dose by five grains at the end of every period of three weeks until forty grain doses were reached. In case any ill effect might result from this or

larger doses, I continued to give forty grains for seven weeks, so that I might have time to observe the patients carefully. At the end of that time I gave them forty-five grain doses for three weeks, and then fifty grain doses for ten weeks longer. I then stopped the medicine in all the cases. During all this time (thirty-eight weeks) the number and kind of fits had been noted, the patients had been weighed, and their temperatures and pulses examined and noted every week, while they had been otherwise subjected to very careful observation as to their mental and bodily state.

Effect of the medicine on the number of the fits.—I have put in a tabular form (see table I.), the results of my observations in regard to the number of fits taken by the patients when they were not taking the medicine, and during each of the periods of three weeks when they were taking the different doses of the drug.

TABLE I.

Quantity taken per day.	No. under treatment.	Total No. of fits in three weeks.	No. of fits to each patient in three weeks.
No Medicine	29	398	13·5
15 grains	29	344	11·9
30 „	29	269	9·3
45 „	29	348	12
75 „	29	174	6
90 „	26 *	61	2·3
105 „	26	64	2·5
120 „	25	86	3·4
135 „	25	58	2·3
150 „	20†	48	2·4

As various causes prevented me from continuing the experiments in the cases of all the patients on whom they were begun, I have given in one column the number of

* One patient had taken acute rheumatism, one had turned over in a fit and died, and in the third, a boy of 15, the medicine had to be stopped.

† Besides the above it had to be stopped in four more cases, on account of its ill effects; in another boy I did not go on to the large doses; and in the ninth patient the delusion that it was poison I was giving him was so strong that I did not continue its use all the time.

patients under treatment. By some mistake, the patients, after having been three weeks on fifteen grains three times a day, were put up to twenty-five grains, instead of the usual increase of five grains, so that in the column containing the quantity of medicine given to the patients it will be found that there is a leap from forty-five to seventy-five grains.

From this table it is seen that the total number of fits taken by the patients in three weeks diminished from 398, when the patients were taking no medicine, to forty-eight when they were taking 150 grains a day. But as there were only twenty patients under observation at the latter period, and twenty-nine at the former, we have to look to the last column to ascertain the ratio of fits to each patient. From this we see that the average number of fits taken by each patient was 13·5 with no medicine, that it fell to 11·9 under fifteen grains a day, to 9·3 under thirty grains; there was a leap up to 12 under forty-five grains, but that this increase was accidental seems to be shown by the number falling to 6 under seventy-five grains, and to 2·3 under ninety grains. This was the lowest point reached. After this, while the patients were taking from 105 up to 150 grains daily, the number of fits remained wonderfully uniform, not varying much from 2·4 to each patient. I kept them for ten weeks on 150 grains daily, and the average number of fits remained very uniform during all that time. The number of patients under treatment was evidently sufficient to give a very uniform and fair average, and to correct the imperfect results of treating individual cases.

The relative number of fits taken by the patients from six o'clock a.m. till eight o'clock p.m., as compared with those taken from eight p.m. till six a.m., was completely altered by the medicine. During the thirteen weeks which elapsed from the time the patients were placed under observation until they began to take twenty-five grain doses of the medicine, the number of fits taken during the day greatly exceeded those taken during the night, while after that time the fits taken during the night always exceeded those taken during the day. When taking no medicine the night fits were only eighty per cent. of the day fits; after they had taken fifty grain doses of the medicine for ten weeks, the night fits were twice as numerous as the day fits. The average number of fits to each patient was diminished to about one-sixth, the day fits being lessened to one-twelfth, and the night fits to one-third of those taken with no medicine.

The above being the results, taking all the patients together, we shall next examine the results in regard to each of the patients separately. In table II. I have given the average weekly number of fits before and after taking the medicine in each case.

TABLE II.

NAMES.	Average No. of fits per week without medicine.	Average No. of fits per week with medicine.	Percent- age of reduc- tion.	NAMES.	Average No. of fits per week without medicine.	Average No. of fits per week with medicine.	Per cent- age of reduction.
J. G.	36	4.4	718	H. O.	2.3	1.7	35
P. Mc.	5	.8	525	J. F.	2	1.6	25
T. S.	1.5	.3	400	T. J.	3.7	3.2	16
W. G.	4.1	1	310	T. F.	5.5	5.3	4
W. M.	7.2	1.8	300	T. K.	6.2	10.3	...
J. B.	5	1.3	290	F. L.	2	2.4	...
J. B.	7.7	2.4	220	R. S.	1	2.5	...
J. D.	1.7	.6	183	*			
R. M.	3.7	1.6	131	T.W.H.	.84	.1	740
W. L.	2	.9	122	J. Y.	1.81	1	171
J. W.	9.5	4.5	111	R. Mc.	1.23	.7	76
J. B.	14	7	100	J. C.	.3	.2	50
T. W.	1.7	1	70	J. G.	.3	.2	50
J. P.	8	5.2	54	J. S.	.3	.4	...
J. P.	1	.7	43	T. J.	.3	.4	...

This table is so far defective that the average without medicine was only taken, in most of the cases, over four weeks, while with medicine it is over thirty-four weeks. Then, too, the full effect of the larger doses of the medicine is not shown in the table, because in most of the cases the larger doses were vastly more effectual than the smaller doses. But taking the table as it stands, we see that in one-half the

* Below this are patients who took fits at very irregular intervals, in whom therefore I took the average number of fits without medicine over a period of 13 weeks instead of 4.

cases the number of fits were reduced to or below one-half of their previous number, while in one-fourth of the cases they were reduced to below one-third of their previous number, and in two cases to about one-ninth of the average number taken without medicine. Even this does not at all represent the true result of large doses. In the case of J. G., at the head of the list, who took thirty-six fits per week without medicine, after he had got up to half drachm doses he had no fits for ten weeks, and only had four fits for sixteen weeks thereafter. The reduction in this man's number of fits, therefore, amounted to 24,000 per cent! In another case, W. M., the average without medicine was 7.2 fits per week, while after he had got up to half drachm doses of the medicine he only had twenty-two fits in twenty-six weeks, amounting to a reduction of 806 per cent. Another case, W. G., had 4.1 fits per week without medicine; after he had got up to half drachm doses, he had only eleven fits in twenty-six weeks. This was a diminution of 876 per cent. Another case, P. Mc., had taken five fits per week, and after half drachm doses, was reduced to seventeen fits in twenty-six weeks, or 670 per cent. T. S., the third in the table, had, on an average, 1.5 fits per week; after he got half drachm doses he only had one in twenty-six weeks, showing a reduction of 3,650 per cent. J. D. had taken 1.7 fits per week, and only took six in twenty-six weeks, being a diminution of 640 per cent. J. F. took on an average two fits per week, while after getting up to half drachm doses of the medicine, he only took thirteen in twenty-six weeks, showing a diminution of 300 per cent. Had those seven patients not been taking any medicine they would have taken 1,495 fits in twenty-six weeks; as it was, they only took 74 fits in that time.

In only five of the twenty-nine cases were the number of fits more numerous after the medicine was taken than before; and in the only one of those (T. K.) in which this was markedly the case, the fits, which had been most severe before, were quite altered in character, and became much less violent after he took the medicine. He used to throw himself out of bed, and often to bruise himself severely during every fit he took at night before he got the medicine; he never did so afterwards. Another man (J. S.) in whom the fits were slightly more numerous, after getting the medicine became greatly more amiable and improved in mind.

Effect of the medicine on the character of the fits.—In seven cases out of the twenty-nine there was a most marked change

in the severity and length of the convulsive state, and of the succeeding coma. In two cases, where the patients threw themselves about during some of the fits, and took others in the ordinary way, they have never had one of the former kind since they began to take—the one fifteen grain, and the other thirty grain doses. One lad, who rushed forward with extreme violence during the tonic stage of convulsion, and threw himself out of bed at night, has, to some extent, lost this tendency. In another, the fits, when they do come on, now resemble more the *petit mal*. Besides those nine marked cases, the fits seem, on the whole, less severe in fully half the others. In no case has there been noticed any aggravation of the severity of the fits. In one of the cases I have referred to as throwing himself about during certain of the fits he took, he saw a bright light fully half a minute before the fit. This light became brighter, and seemed to come nearer until it reached his eye, when unconsciousness came on. He tells me he has seen this light on several occasions since he took the medicine, but it never “came near.”

Effect of the medicine on the patients' mental state between the fits.—In seven of the patients, the characteristic irritability and tendency to violence of epilepsy were most wonderfully lessened. Not only were the attacks of very marked and extreme irritability after or before fits almost abolished, but their normal mental condition became by far more rational. Those were some of the worst cases in the house. In three cases who had never before been able to go to chapel, to the amusements, or out to work, on account of the fits, they now go regularly to all of these ; and consequently, life to them has far more of enjoyment and happiness than it had before.

The condition of these patients as regards comfort and safety to themselves and others, is most markedly improved, yet when the patients were imbecile before, they remained imbecile under the use of the medicine. It must be kept in mind that all the cases were of old standing, and many of them reduced to almost total dementia by the fits. Diminution of nervous and mental irritability was the one characteristic feature in those who benefited by the use of the drug. As the larger doses were approached, some of the patients became very torpid and somnolent. In three cases this was most marked. In two of them the medicine had to be stopped for this reason alone, when they had got up to forty-five grain doses thrice a day. In twelve of the other cases, where the alteration in the mental condition was not quite so great

as in those seven, there has been on the whole a marked improvement. In ten of them there has been no perceptible change in their mental state. I have referred to one case where there has been a marked improvement in mental state, who has, nevertheless, slightly more fits per week with the medicine than without it.

Of the twenty cases who have taken the medicine all the time, only six of them have been excited or maniacal to any extent, and those on one occasion each, since they had twenty-five grain doses of the medicine. Only two of those had attacks of true epileptic mania.

Effects on the Patients' Weight, Temperature, Pulse, and General Health.—There is scarcely any surer rough test of health among a number of persons subjected to the same conditions as regards diet and exercise, than ascertaining their weight at stated intervals. As a means of testing the effects of any medicine on the general health, given as I gave the bromide of potassium, I regard it as even more valuable. It is impossible that any drug could act as a slow poison without bringing down the weight.

The general weight of the patients remained wonderfully uniform while taking the 5 and 10 grain doses. Taking the united weight of the 27 patients at the end of the 10 grain period,* there was only a loss of two pounds. (See Table 3.)

TABLE III.

Amount of Bromide taken per day.	No. of patients.	Original aggregate weight with no medicine.	Aggregate weights while taking the medicine.	Number who gained in weight.	Number who lost in weight.
30 grains	27	4,136 lbs.	4,134 lbs.	12	15
90 „	24	3,663 „	3,708 „	17	7
120 „	20	3,076 „	3,132 „	14	6
150 „	19	2,904 „	2,922 „	11	8

At that time 15 of them had lost weight, while 12 had gained, but the greatest difference in any one case was only seven pounds. By the time the patients had got up to half drachm doses there was an increase of 45 pounds in the united weight

* Two of the patients were boys whose weight was regularly increasing as they grew, so that I did not include them.

of the 24 who were then taking the medicine. When they had been three weeks on 40 grain doses their united weights amounted to 56 pounds more than before they were put on treatment. This was an average increase of two pounds and three quarters for each of the 20 who were then taking the medicine, and only six of them had lost weight, while 14 had gained. One man had gained 15 pounds, but, with that exception, the gains had been pretty uniform and equally distributed. The greatest loss had only been five pounds. After the patients had been taking 50 grain doses for ten weeks, the aggregate weight of the 19 then under treatment was still 18 pounds more than it had been at first; but then this showed a loss of 40 pounds since the same patients had been on 40 grain doses of the medicine seventeen weeks before. They had all lost weight in that time except eight, and six of them had lost over six pounds each, while one had lost twenty pounds. The tendency was certainly to lose weight at that time, but this may have been partially accounted for by the fact that the time of year was summer, when most people lose weight. Taking those nineteen patients, eleven of them had gained in weight at the end of the nine months during which they had been under treatment.

There had been a continuous upward tendency, till the doses were forty grains three times a day in the month of March, and then the aggregate weight began to fall.

While the above was the general result, taking all the patients together, yet in four of the five cases in which the medicine had to be stopped on account of its causing ill effects, those patients had been losing in weight for a week or two when the other ill effects were coming on. Practically, the regular weighing of the patients under treatment was a very important matter, indicating, amongst other symptoms, when the drug should be stopped, or the dose lessened. In one of the cases the dose was reduced by one half, and the patient at once began to pick up in weight. The patients lost from three to twelve pounds in a week when the medicine was causing other ill effects.

Temperature.—In a former paper in this journal * I stated that I had found the average temperature of epileptics to be 97.48° in the morning, and 97.38° in the evening. Those results were obtained from the same twenty-nine patients I subsequently put under treatment for epilepsy. The average temperature after the patients had got up to ten grain doses

* April, 1868.

was 97.35° ; after they had got up to thirty grain doses it was 97.39° in the morning, and 97.27° in the evening. At the forty grain doses it was 97.17° in the morning, and 97.26° in the evening. This showed a slight falling in the temperature. According to the results of my previous investigations a morbid or fatal tendency in any class of cases is soonest and most certainly shown by a rise in the evening temperature over the morning temperature, or an approach to this. No such result seemed to be caused by the medicine up to that point. The average temperature of the twenty cases who continued to take fifty grain doses for ten weeks, was, at the end of that time, 98.16° in the morning, and 97.91° in the evening. This is $.68^{\circ}$ higher than the normal morning temperature of epileptics, and $.53^{\circ}$ higher than their evening temperature; but the weather was very hot at the time the patients were taking the fifty grain doses, and this may account for the increase at that time.

In the cases where this medicine had to be stopped on account of its ill effects an increased temperature was always observed. In one case it rose to 99.8° , in two others to 100° , and in one to 101.2° . In those cases, too, the evening temperature was always raised above the morning temperature. The lowering of the temperature observed by me at first agreed with recent German investigations into the physiological effects of the drug. When patients are taking many fits, too, in quick succession, their temperature is apt to become higher, and the average temperature might have been lowered on account of the fewer number of the fits taken.

Pulse.—The average normal pulse of the patients was 83 in the morning and 76 in the evening. During the ten grain dose period it was 82 in the morning and 72 in the evening; during the thirty grain dose period it was 83 in the morning, and 73 in the evening; during the forty-grain dose, it was 77 in the morning, and 70 in the evening, and at the end of the fifty grain dose it was 80 in the morning, and 73 in the evening. There was a tendency to fall, therefore, up to forty grain doses.

General Health.—During the time the patients took the medicine, with certain exceptions, they ate well, slept well, and all their bodily functions were unimpaired. It never produced sickness in a single case, except one, and this was obviated at once by being more diluted, and I never could make out that it affected the stomach and bowels in any way whatever. I had not the means of ascertaining its effect on the

sexual function. It did not seem to impair the energy of the nervous system in the majority of the cases to any abnormal extent. As we have seen, it certainly in many cases reduced the superabundant and morbid energy and irritability. In some of the cases it certainly increased the appetite.

To those general statements there were certain exceptions. Out of the twenty-nine cases the medicine had to be discontinued in five on account of the ill effects it produced. The first case in which these ill effects were seen was in a boy of fifteen, who had taken fits almost from birth, who took an average of 5.5 per week without medicine, and who at the end of eleven weeks from the time the medicine was begun, and when he had been getting twenty-five grain doses for a fortnight, became drowsy and feverish, fell off his food, his tongue became coated with a thick white fur on each side, with a raw line down the middle, he lost weight, and had slight pneumonia at the extreme base of both lungs. In his case the fits had increased in number after the medicine had been pushed beyond ten grain doses, and they increased still more after the medicine was discontinued. In about a week after the medicine was discontinued he was in his usual state of health, with the exception of the increased number of fits, and it was three months before they came down to the average. After that, however, they became very infrequent. The next cases in which ill effects were manifested were two men, the one thirty and the other forty years of age, both of whom had taken fits from childhood, were quite demented, and took about two fits a week on an average. After they had taken the medicine for seventeen weeks, and had got to the end of the 35 grain dose period they both about the same time became drowsy and lethargic to an extreme degree, feverish, their tongues furred, and on examination double pneumonia for about the lower fourth of the lungs was found to exist in both of them. Previously to the coming on of this state the fits had ceased in both cases for about a month. They both recovered, but remained long in a torpid state of mind and body. As they recovered the fits began to come on as usual.

In the other two cases, one twenty-four and the other forty, both of them epileptics for many years, immediately after the two last had exhibited ill effects, and at thirty-five grain doses, the same symptoms began to appear, with the exception of the pneumonia. The medicine was discontinued earlier, being altogether stopped in one of the cases, and reduced to half doses in the other, and they both recovered their usual mental and bodily condition in a fortnight thereafter.

The torpid state I have described seemed to me to result from a partial suspension and paralysis of the activity of the whole cerebro-spinal system. I could not detect any special effect on the functions of the spinal cord more than on those of the cerebrum. On the whole the drowsiness and mental torpor preceded the bodily inactivity. The tendency to pneumonia seemed distinctly to point to an interference with the functions of the ganglia, from which the roots of the pneumogastric nerve spring. The motor inactivity, indeed, seemed to me to result rather from the want of stimulus from above than from direct paralysis of the cord. I did not notice any marked deadening of the reflex action of the cord. This is not in accordance with recent German investigations into the physiological action of the drug. I observed no affection of the ganglionic system of nerves. In two cases there had been, to begin with, unequivocal signs of partial paralysis of the legs, and the co-ordinating power of the muscles of the legs was much impaired. In one of these the medicine did not aggravate this affection. In the other it did so considerably after the fifty grain doses had been reached, but not till then.

Effects of the medicine on the different varieties of the disease.

—Examining the seven cases in which we have seen the medicine to have had most effect in diminishing the numbers of the fits, do we find that they had anything in common as to age, length of existence of the disease, cause of the disease, kind and frequency of the fits, or in any other respect? I shall investigate the same points in regard to the patients in whom the medicine caused ill effects.

Those patients in whose cases the fits were most diminished were of all ages, from twenty-four to fifty-five. In all of them the epilepsy had existed for many years. In three of them, indeed, it had existed from childhood, and in one from puberty. In no respect does there seem to be anything in common. In all of them, indeed, there is a certain amount of intelligence left, but it varies much. In J. G's. case, the patient who was most benefited of any, he is very nervous at all times, being easily startled by impressions on his sensory organs, and the majority of his fits consisted of those in which the body was violently jerked and thrown about with no clonic spasm, and of those he has in the meantime quite got rid. He saw a bright light immediately before those fits came on. They are not invariably the patients who have gained most in weight, or whose bodily health has in any way improved most while taking the medicine. The numbers

of fits taken by those patients vary considerably, from an average of 36 per week down to an average of one fit. On the whole, however, the good effects of the drug in diminishing the number of fits, and in improving the mental state, were more marked among patients who took frequent fits, than among those who took fits at very rare intervals. All those who took frequent fits were not materially benefited, but in only three cases out of nine, whose average number of fits was one a week or under, were the beneficial effects of the drug very strongly marked. In one such case, while the fits did not come on for fourteen weeks, yet the mental condition of the patient during that time was weaker and less rational than usual. This is the only case in which this result was seen, and it may have been a mere coincidence. Even in that case the irritability was lessened along with the intelligence.

In regard to the causes of the epilepsy in those benefited by the drug, so far as they were assigned or could be ascertained, they were various. In the seven cases most benefited four were from childhood or puberty, it was brought on by drinking in one case, it was the result of a blow on the head in another case, and in another the cause was unknown. In one case where there are marked signs of organic disease of the motor centres, its good results in diminishing the number of the fits were very marked.

All the five cases in whom the medicine produced ill effects had the following characters in common. 1st—They had all taken the fits from childhood. 2nd—They were all demented in mind. 3rd—The fits, in all of them, were frequent, being more than one fit per week. As to age and cause of the disease, they differ much. In only one of the cases is there evidence of organic disease of the nervous centres.

The most effectual Doses of the Drug for Therapeutic purposes.—We have seen that while the patients were taking thirty grain doses thrice a day, the number of fits reached their minimum (Table I.); and that during this period also the maximum number attained an increase in weight (Table II.) At that dose the drug had not produced any ill effects on a single patient, except one boy of fifteen, to whom it was equivalent to twice that dose in an adult. At the thirty-five grain doses the drug had to be discontinued in three cases on account of its ill effects. There had been nothing in the patients' temperature or pulse at all to contra-indicate the continuance of the drug in thirty grain doses, while the dimi-

nution of their mental and nervous irritability was as great as when they took larger doses.

The most effectual doses of the medicine, therefore, so far as these experiments lead to any result, would seem to be half-drachm doses given three times a day, and considering the total absence of any sickness or other disagreeable effect in the case of any of the patients to whom I gave it in the way I did, there would seem to be some grounds for beginning with smaller doses and giving it after meals.

The limits to which it may be pushed as to time and quantity.

—Since I began my experiments the latter part of the enquiry has been worked out by physiological enquirers, and as no increased therapeutic effect was resulting from the increased doses, while there was a tendency among my patients to lose the weight they had gained, and to rise in temperature, I did not consider it justifiable to continue the fifty grain doses longer than ten weeks. Altogether my patients took the medicine for thirty-eight weeks. It having been ascertained by Laborde that 240 grains is a poisonous dose, I saw no use in continuing 150 grains per diem for more than ten weeks. It might well have been that the hot weather was causing the rise in temperature and the loss in weight among my patients, but I could not be sure of this. My investigation was a therapeutical, rather than a physiological one.

To what extent are the effects of the drug permanent?—After my patients had ceased to take the medicine, the number of fits taken in three weeks by the 20 patients who had been taking the medicine was 150, being 18 in the first week after giving it up, 76 in the second week, and 56 in the third week. In the fourth week the number fell to 39; but even this was four times more numerous than when taking the medicine. In the fifth week they took 46 fits, and two of them had maniacal attacks. Thus, instead of 2·3 fits per patient for three weeks, the number at once rose to 7·5, when the medicine was discontinued. In 5 cases the fits in these three weeks were more frequent than they had been at first; in 13 cases they were fewer, and in two they were equal in number. The man who took most frequent fits, and was most nearly cured, took only one fit in the first three weeks; but in the fifth week he began to “see the light,” very frequently and very near. After this I began the medicine in all the cases.

General observations in regard to the effects of the medicine.—The preceding observations may be considered to some extent satisfactory, and to some extent unsatisfactory. My first object

was to attain scientific accuracy in the method of making the experiments. Without this no accurate results could possibly have been attained. Certain of the results, viz., those relating to the number of the fits, to the patients' weight, temperature, and pulse, and to the doses of the medicine, may be regarded as accurate so far as the number of cases under treatment can give any result. If the experiments were repeated in a sufficient number of cases, general laws might be laid down in regard to those points. The results in regard to the mental state, the general health, the character of the fits, and the varieties of the disease where absolute accuracy of observation is unattainable, may point towards the truth; but the number of observations on these points would require to be increased a thousand fold to establish general laws. Still, the knowledge arrived at by such a series of experiments, limited as their number was, is as light itself compared to the darkness of mind resulting from treating selected, scattered cases in the usual unsystematic, unscientific manner. I think that if we treated all our patients in asylums (where we have ample opportunities of doing so) in the same way for five years, we should then perhaps be able to argue the question of the value of medical treatment in insanity. I cannot but think that my observations furnish, at all events, an *a priori* assumption that medical treatment may in certain of our cases do much good.

I have tried the bromide of potassium in all sorts of cases in the same way as in epilepsy, but as yet I have not had a sufficient number of any kind of disease under treatment to give reliable results. In a certain kind of mild insanity that accompanies the change of life in women, I have found it apparently a specific. But then the number of cases of the kind in which I have been able to try it have been very few. I shall have to reserve my observations on this, as well as on the effects of opium in mania, for another communication at some future time.

Summary.—1. Twenty-nine cases of epilepsy of old standing, all having the same diet, and subject to the same conditions, were subjected to systematic treatment by bromide of potassium after their normal condition as to fits, weight, temperature, general health, and mental state, had been ascertained and noted. I gave them gradually increasing doses of the medicine up to fifty grains, three times a day, and the treatment was continued for thirty-eight weeks, every particular in regard to the disease and in regard to their bodily and mental condition being noted every week during that time.

2. The total number of fits taken by the patients fell gradually under the use of the medicine to one-sixth of their average number without medicine.

3. The fits taken during the day were lessened to about one-twelfth, and those taken during the night to about one-third of the normal number.

4. The reduction in the fits was not uniform in all the cases. In one case it amounted to 24,000 per cent., in one-half of them to more than 100 per cent., and in five cases there was no reduction at all.

5. In one-fourth of the cases the fits were much less severe, in some being less severe, while as frequent as before.

6. In one-fourth of the cases the patients' mental state was very greatly improved. Nervous and mental irritability and tendency to sudden violence were wonderfully diminished in those cases, and they were the worst of the patients in that respect. Attacks of epileptic mania were diminished. In some cases the mental state was improved, while the fits remained as frequent as ever.

7. The majority of the patients gained considerably in weight while the doses were under thirty-five grains three times a day. Their aggregate weight was greater at the end of the thirty-eight weeks than it had been to begin with, though it began to fall after thirty-five grain doses had been reached.

8. The patients' temperature fell somewhat until they got up to fifty grain doses thrice a day.

9. The pulse gradually fell about seven beats up to forty grain doses. After that it rose, but not up to its usual standard without medicine.

10. None of the patients suffered in their general health except five. All the others were benefited in some way, except one,

11. The ill effects produced by the medicine in those five cases were torpor of mind and body, drowsiness, increase of temperature, loss of weight, loss of appetite, and in three of them slight double pneumonia.

12. The cases most benefited by the drug were very various as to the causes, number, and character of the fits, age, and in every other respect. On the whole the cases who took most fits benefited most.

13. The cases in whom the medicine had ill effects had all taken fits from childhood, were all very demented in mind, and took more than one fit per week, but seemed to have nothing else in common.

14. The diminution of the fits and all the other good effects of the medicine reached their maximum in adults at thirty grain doses three times a day, while ill effects were manifested when thirty-five grain doses three times a day were reached.

15. There seemed to be no seriously ill effects produced in twenty of the cases by fifty grain doses of the medicine thrice a day, continued for ten weeks.

16. When the medicine was entirely discontinued in all the cases the average number of fits increased in 5 of the cases benefited, to or beyond their original number in four weeks; in 13 cases they remained considerably less. The total average during that time was a little more than one half the number of fits taken before the medicine was given, and the greatest number of fits occurred in the second week after the medicine was discontinued.

The Distinction, physiologically and psychologically considered, between Perception, Memory; Sensation, and Intellect: By The Rev. W. G. DAVIES, B.D., Chaplain, Joint Counties' Asylum, Abergavenny.

Perception we define to be the intellectual and presentative consciousness of objects of any kind, internal or external, and the primary gateway of knowledge. In every perception the object is a most prominent feature. It is in the invariable presence of the object in perception, and its absence from memory and imagination, that we behold the striking difference which there is between it and the latter; and it is on this distinction the universal assurance is grounded that what we perceive is different from what we remember or imagine. In every perception there is an intellectual and a sensational element, and memory proper is the persistence of the intellectual element after the sensational element has disappeared from consciousness, or after the peripheral nerves have ceased to excite the sense-centre. In no instance have we been able, by any amount of effort, to make an act of memory or imagination seem a perception; yet Hume divided perceptions into two classes, as distinguished by their different degrees of force and vivacity. The less lively he named thoughts and ideas; the more lively, impressions. Professor Bain seems to take the same view of the question. In refer-

ence to the recalling of past feelings, he says :—"The renewed feeling occupies the very same parts, and in the same manner, as the original feeling, and no other parts, nor in any other manner that can be assigned."* It is the opinion of some, then, that memory and imagination only differ from perception in being less lively. The latter is a vivid picture, the former are faint reproductions of it. We fail to see that this is precisely the case. In every perception there is an object present, and cognized as distinct from the consciousness of it—in special instances, as even distinct from the perceiver altogether. When we gaze at a picture, the picture is regarded as one thing, the knowing of it as another; whereas when we only think of the picture, we do not recognize any object as really distinct from thought itself. An imagined external object is still detected to be a mental object. "A representation considered as an object is logically, not really, different from a representation considered as an act. Here object and act are merely the same indivisible mode of mind viewed in two different relations. . . . The same may be said of image and imagination."† "Imagination, regarded as a product, may be defined, the consciousness of an image in the mind resembling and representing an object of intuition."‡ Though we do not exactly hold with these opinions, we quote them in order to show what view is taken by some psychologists in reference to the distinction between presentative and representative consciousness, or between knowing a thing immediately in perception, and knowing it mediately through an image of the mind's collecting. How is it possible, when contemplating a mountain which one is on the point of ascending—albeit the mountain is to us, as immediately known, in a sense-centre—to regard it as identical, except in vivacity, with the recollection which we afterwards have of it? Perception is, so to speak, a *bi-une* fact, a synthesis of cognition and object, whereas memory and imagination are not *bi-une*, for the object is not present in them, in the same manner, at least, as it is in perception. But let us now proceed to adduce facts and deductions confirmatory of this view of the question.

At the present time, it is commonly admitted that there are in the brain sensory ganglia or sense-centres. "Any one of the senses may be destroyed by injury to its sensory

* "The Senses and the Intellect," p. 333, § 10.

† "Hamilton's Reid," p. 809, § 10.

‡ "Prolegomena Logica," Prof. Mansel, 2nd edit., p. 13.

ganglion, as surely as by actual destruction of its organ; blindness is produced by injury to the corpora quadrigemina, smell is abolished by the destruction of the olfactory bulbs. These ganglionic centres are thus intermediate between the higher hemispherical ganglia above and the spinal centres below them; to those they are subordinate, to these they are superordinate.”* We cannot, then, with the light which physiology now sheds on mental science, hold the ultra-common sense doctrine that the mind is somehow conscious, face to face, of a real external object, for it is looked upon as an established fact that we have no presentative consciousness of the external objects of the many, except in the sense-centres. Even Sir W. Hamilton, after once holding that we are cognisant of an external object at the peripheral extremity of the nerves of sense, found the evidence in favour of the other position too strong, and admitted that, from many pathological phenomena, the former alternative might appear the more probable, namely, “that the mind is proximately conscious of the reciprocal outness of sensations at the central extremity of the nerves in an extended *sensorium commune*”.†

Sensation, then, has its seat in the secondary nervous centres, and our extended sensations are projected in consciousness from these to the peripheral extremity of the nerves, owing to the fact, as has been shown elsewhere,‡ that the nerve-filaments, extending from the extremities to the brain, are in consciousness nil;§ and that the centres with which they are connected form an extended sensorium, while the centres themselves, having no tactual sensibility, are not, in consciousness, located in the brain; consequently, they seem to have their affections present in the localities to which they are by all men assigned.

The distinction for which we are contending is very perceptible in the use of speech. There is evidently a marked difference between language in audible communications, and in silent reading. When a book is read so that the voice be heard, there is actual movement in the articulating organs, but when it is silently read, there is no such movement. The difference in these instances seems to be that, in the one, the

* “The Physiology and Pathology of the Mind,” Dr. Maudsley, p. 87, et seq.
 “Lewes’s Biographical History of Philosophy,” Cabanis, Condillac, and Darwin.

† “Hamilton’s Reid,” p. 861, *note*.

‡ “Journal of Mental Science,” Oct., 1867.

§ “Muller’s Physiology,” pp. 692-696, English translation.

mind, while operating, causes the articulating organs to act, but in the other, arrests their action. The tendency, at first, is for the organs of speech to perform their function when a book is perused, as we perceive in the case of the novice, who reads in a whisper, when attempting to read silently, because he is not yet able to sever the actions of the mind from the associate actions of the motory centres concerned in audible reading. The physiological explanation of this distinction is, we presume, the following:—In audible reading the working of the cerebral organs calls into full activity the appropriate motory centres, while in silent reading, the action of the former does not call the latter into full activity, yet seems to excite them into subdued operation, accompanied by arrest of a portion of their function.*

In the preceding paragraph we have examined the operation of centres which are under the control of the will. In contrast to these, we shall next examine a centre which is not under the direct control of the will—namely, that of sight. We cannot understand how a rose as seen and the idea of a rose involve one and the same operation of the mind. The visible rose exists as a sensation in the sense-centre, and furthermore makes operative the related cells in the cortical region of the brain; the sensation and the notional manifestations thus forming together the *bi-une* fact called perception. Now, what we desire to point out is, that the nervous current proceeds from the peripheral surface to the sense-centre, and thence to the ideal centres; and that along this route its course, like that of a tideless river, seems never to be reversed. Reflex action does not take place along the route of the sensitive nerves in the reverse order, but along the motory nerves. The notion of a visual object appears, then, to excite into action, not the visual centre, but the motory centres concerned in seeing. The elevation, depression, and lateral movement of the eye-ball, the adjustment of the lens, the converging or diverging of the axes, some or other of these movements seem to be indispensable for forming a vivid image of an absent object; and these result from the operation of the motory centres. The conclusion, then, to which we are led is this:—In memory the sense-centres are not acted upon

* The writer of this has frequently succeeded, even while eating, in singing some air with which he was familiar. The motory ganglia most largely concerned in this experiment seem to be those pertaining to the respiratory organs. This subdued operation of the motory centres appears to be indispensable to an act of thinking.

by the cerebral convolutions, except by means of the motory ganglia, which are directly under the control of the latter. The feeble hallucinations* which are experienced in vivid recollection or imagination are produced, not directly, as in perception, but indirectly, from the habit which the sense-centres have acquired of operating in conjunction with the motory ganglia concerned in perceiving. Were it in the power of the ideational nervous centres to re-act immediately upon the sensory ganglia, any one could experience hallucinations at pleasure, differing in nothing from perception but in the fact that the latter were involuntary, while the hallucinations were voluntary; one could enjoy a banquet when he chose, entranced by the glories of the visible creation, the murmurs of falling waters, the singing of birds, and the music of celestial choirs. Who would be a beggar, when he could thus dream at will, and be a king? Who would concern himself much with the real world, when he could thus, in his sense-centres, summon into existence the paradise most congenial to his taste?

In deciding this question, stress, moreover, should be laid upon the fact that certain objects in sensation are not only felt as non-mental, but as also non-egoistical. Some of our sensations, the tactual, the visual, and the auditory, are without passion, mental or corporeal. Although originated in self, they have no element of self in them, and are consequently cognised as not-self. This does not amount to saying that they are unattended by organic feelings, but that they are distinguished from the latter by the absence of any subjective characteristic. The extended sensations, for instance, embrace those which pertain to the organism as an animate *ego*, and in correlation with, and as distinguished from these, those which are felt to be no portion of the *ego*. Now since, in perception, many sensations are known as non-egoistical, while objects are always known as a mode of mind in memory and imagination, we cannot fail to see that there is a marked distinction between these two orders of knowing. The position then seems to be made good that, in an act of perceiving, the sense-centre and cerebral centres have a combined action, while in memory and imagination they have, at least, not this kind of combined action.

Having shown that perception is a synthesis of sensation and

* Griesinger on "Mental Diseases," English translation by Drs. Robertson and Rutherford, p. 29, § 2. "The Physiology and Pathology of the Mind," p. 113 (b).

intellect, it behoves us now to inquire into the nature of these, its constituent parts.—It has long been held by psychologists that a sensation cannot exist *per se*. Sir W. Hamilton gives an account of those who held this doctrine, which may be expressed in the words of Aristotle—"To divorce sensation from understanding is to reduce sensation to an insensible process; wherefore it has been said, intellect sees and intellect hears."* This, however, is only true in one sense. It is now well known that the cerebral centres depend for development upon a stimulus coming from the sense-centres below; that these may and do exist without the former, while the former cannot exist without these; that the sensory ganglia, acting independently of the primary nervous centres, produce sensori-motor effects, and even that they operate when the organs of intelligence are eliminated. "When the cerebral hemispheres are experimentally removed in animals, as was done by Flourens and Schiff, the sensori-motor acts abide; the animal appears as if in a sleep, or in a dream, and takes no notice; yet if a pigeon so treated be thrown into the air, it flies; if laid on its back, it gets up; the pupil contracts to light, and in a very bright light the eyes are shut; it will dress its feathers if they are ruffled, and will sometimes follow, by a movement of the head, the movement of a candle hither and thither. Certain impressions are plainly received, but they are not further fashioned into ideas, because the nervous centres of ideas are removed; and, as has been aptly observed, the animal would die of hunger before a plateful of food, although it would swallow the food if put into its mouth."† We fully acquiesce in these views as to the independent existence of sensation, for we cannot see that it is simply an excito-motor force when existing *per se*; still we cannot admit that a sensation can be known—can in any sense be a gateway of knowledge—in the absence of that agency of mind without which nothing is known to man—that is, nothing is discriminated, remembered, and classed. Although, then, it is found that a sense-centre can be active to some extent, even in the higher animals, without rousing the hemispherical convolutions into activity, still if it should rouse these, the sensation is then *known*, it forms part of the synthesis sensation *plus* cognition, *i. e.*, perception; and in this condition alone is to us a source of knowledge.

* "Hamilton's Reid," p. 878, *note*. See also Mr. Lockhart Clarke, "Medical Critic and Psychological Journal," Vol. II., p. 575, *et seq.*

† "The Physiology and Pathology of the Mind," p. 94.

Now, if a sensation in perception be known, we should be able to describe its nature.—Let us select for examination a visible object—say a portrait. Such an object, as presentatively known, is, both according to the psychologist and the physiologist, a sensation, being, according to the latter, generated in the visual centre, and therefore a form of consciousness. It is, however, neither ideal nor emotional consciousness, nor is it consciousness possessed of corporeal passion. It is simply consciousness presentative of an object that has no element of self in it, which, indeed, is realized as a *non-ego* located at some distance from the beholder—and were not the object, be it observed, thus realised as a not-self, it could not, as it is, be projected in appearance to a distance from us. A visual sensation then, although, as known, inseparable from intellect, is quite distinguishable from it—so distinguishable, indeed, that by all men it is practically regarded as pertaining exclusively to the external world. In short, objective sensation is what the many regard as an external object—a ball in the hand; a picture; the roaring of the sea. Now a ball does not discriminate, classify, and draw inferences, yet a ball, as immediately known and apart from what it suggests, is a sensation. A sensation, therefore, is simply a conscious presentation of an object to the intellect. We have next to inquire into the nature of the intellect which is roused by a sensation, which is therefore prior to intellect in the order of existence, but is posterior to it in the order of knowledge, for nothing exists for us but through the medium of knowing; so that we may say creation becomes known to itself by means of its latest, most elaborate, and most complex development, and thus knows itself as the synthesis—being *plus* knowing.

Intellect in perception, its first form of manifestation, is a differentiating or analyzing process.—It apprehends an object as a whole distinguished from other wholes; and as possessed of parts distinguished from each other, and from the whole which they constitute. What proves this view to be correct is the form of speech in which perception is expressed, namely, the proposition or asserting sentence. In the proposition, the subject must invariably be the name of a whole, while the predicate can be the name of a part of that whole; and as many predicates can be affirmed of one and the same subject as there are qualities pertaining to the whole which the subject designates. But perception, besides being a differentiating process, must also be an identifying one, for there could be no

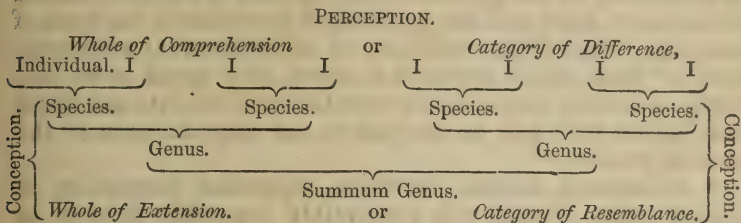
perceiving if the same object were not kept present to the mind for a certain length of time. This is effected by the identification of the present sensation with the representation of the latest, later, and late past, which procedure is the basis of memory. One of the conditions of all intellectual consciousness is "time, which supposes memory, or to speak more correctly, a certain conscious representation of the late and latest past known with and in contrast to our apprehension of the passing present."*

A subsequent mental operation, supposing perception in logical order, though not perceptibly separable from it in time, is conception, which takes note of the resemblance existing among two or more wholes as cognized by perception. It is this mental operation which enables us to classify individual objects, to bring them from confusing multiplicity into unity and order, and to invent common instead of individual terms or proper names, to the use of which, with perception alone, supposing intelligence could thus exist, we should necessarily be limited.

Usually, in describing the function of intellect, perception, as an analysis of sensations in time, is not brought into sufficient prominence, and is confusedly regarded as now a function of the sensorium, now of the intellect. Lines of investigation, however, starting from various localities on the border of the realm of mind, converge towards a point which necessitates a different conclusion. Those who have investigated the laws of mental association, divide them into the law of contiguity or redintegration, by which *different* mental modes, and the law of similars, by which *like* mental modes, are associated together. It is common to divide the primary mental operations into perception, as that which, though ambiguously stated, discriminates or differentiates, and conception (*con-capere*), that which regards in one view this, that, and the other, because they are similar, and collects them into a class. Logic informs us of division, which is effected by attending to differences; of classification, which is effected by attending to resemblances; and also of connotation, or the whole of comprehension, which is the category of difference, and has its pole in the individual and proper name; and of denotation, or the whole of extension, which is the category of resemblance, and has its pole in the *summum genus*.

* "Hamilton's Reid," p. 878, § 6.

The following table will, we presume, render quite explicit the view herein adopted:—



In this table, only three steps are described, but these serve to illustrate all that takes place in the longest series of generalizations from individuals to the *summum genus*.

It seems to us to be an error, then, to describe thought as being primarily concerned with forming concepts—general notions—for it is impossible to form these but on the basis of individual notions, which, as has already been pointed out, are not given in sensation pure, but are derived from an analysis of sensation by the intellect. We cannot, therefore, agree with those who declare that the intellect's primary function is to fashion impressions or "sensory perceptions" into ideas or conceptions by the abstraction of the similar from the diverse.* From a review of the facts of the case, it appears that the mind originally discloses itself only in so far as it is excited into activity by an external force; that the force exercised by the afferent nerves causes the sense-centres to develope; that the force exercised by these causes the sensori-motor and the primary centres to develope; and that the differentiating or individualizing agency of these forms the basis of their classifying or conceptive agency; for instance, new sovereigns of the same mintage, must be individualized or apprehended as differing from each other in space, and consequently in number, in order to be cognized as so precisely similar to each other. It appears, therefore, that the primary act of thought is a differentiating judgment involving a cognition of time, and that conceptive thought is founded upon this.†

The modus operandi of the brain-force can, it is presumed, never be ascertained by direct evidence; it must be deduced from

* "Prolegomena Logica," chap. I.

† In the "Alphabet of Thought" (Williams and Norgate), part II., chap. 1 and 2, this will be found treated more at length, but requiring correction in one or two instances.

the facts disclosed by anatomy and physiology, as compared with those of a strictly inductive psychology. Now, according to the theory that every manifestation of intelligence is dependent upon the agency of the vesicular neurine of the cerebrum, it must, we imagine, be received as an axiom that what is distinguishable in thought involves either (1), the action of a distinct portion of the cerebrum, or (2) a distinct mode of action in any such portion.

1. As to the *first* of these alternatives, it is more than probable that each cell of a sensory ganglion is connected by a nerve-filament with a cell in the primary centre;* and if this be the case, *each sense-centre has its relative aggregate of cells in the primary centre, forming its special organ.* The contrary supposition—namely, that every sense-cell is joined to each one of the cerebral cells—is not at all probable, for it is incompatible with the fact that the minima of extension are simultaneously distinguished from each other by the intellect. Now this could not be the case, if every discriminating cell were synchronously engaged in being cognizant of each minimum of extension; for one at a time only could then be perceived, and consequently there would be no consciousness of the reciprocal outness of the several minima. Seeing, moreover, how minute and countless the nerve-cells are, the interlacing of fibres would, according to this supposition, be well-nigh interminable; and how could nerve-filaments from every cell in the intellectual region be joined to a single cell in the sensorium? Wherefore it seems highly probable that the contrary supposition is the true one. Weber's experiments conclusively show that, in our tactual sensations, the minima of extension are perceived as distinctly external to each other; and Sir W. Hamilton, after his careful consultation of authorities, declares it to be a law that "A nervous point yields a sensation felt as *locally* distinct, in proportion as it is isolated in its action from every other."† It seems to be the fact, then, that discriminating consciousness depends on the perfect isolation of the nerve-fibres, and their attachment at both the sensational and the intellectual extremity to single cells, each of these yielding a report which is entirely unconfused with that of any other.

The individual action of the cells of an organ—that is, their movement severally,—seems to be the antecedent of the differentiating process in knowing.

* Quain's "Anatomy," 7th edit., part III., p. cxlvii. See "Hamilton's Reid," p. 872. School of Boerhaave.

† "Hamilton's Reid," p. 862. *Note.*

When, however, the cells of organs are put into operation (no notion being adequately realized by a single organ, but by a certain number of them forming a complex organ), it is mostly by a sensation having a well-defined outline, so as to admit of being attended to as one whole, a crow, a star, or a hill; that is, according to the law of subject and predicate.*

By means of the anastomosing process, a cluster of cells as engaged in simultaneous action would be in the first stage of activity.

By means of the longitudinal commissures, two or more organs as engaged in being simultaneously, or in direct succession, conscious of parts of one whole, would be in the second stage of activity, but the first of actual knowing or discriminating consciousness.

2. Under the *second* head—distinct *mode* of action—it has to be shown that the discriminating process must be accompanied by that which links a present manifestation of consciousness with a past as identical with it in all except time.

Therefore we have, as necessary to all discrimination, what seems to be *similarity of action* from moment to moment in the cells *severally* of the organs engaged in being conscious of a single whole. This would be the first stage of assimilative or conceptive knowing, and the basis of memory.†

In order the better to comprehend the hypothesis here proposed, it is desirable to be acquainted with the following conditions of consciousness:—

* The method of knowing is that of existence, namely, beginning with the simple, and developing out of this superior and more complex results. Thus the first step in knowing seems to be the realization of the *ego* in extension *plus* time by means of the extended sensorium *minus* the tactual centre; then, in correlation with the extended *ego*, the extended *non-ego* by means of the tactual centre and the motory centres; then, on the basis of these, coloured extension by means of the visual centre, and its relative motory centres, &c. By the time, however, that the senses are fully in operation, an object is known by the conjoint agency of them all. A sensation experienced in one of the sense-centres unavoidably suggests all that it presupposes in other centres, and also possibly suggests what is simply contingently related to it.

† We only remember that which has already existed in consciousness, which involves that the present consciousness should be precisely similar to the past. Memory, therefore, comes wholly under the law of similarity; like recalls like, but unlike has no power of recalling unlike. Cell-action which is different to any previous action, must be original, and therefore excludes the past, whereas memory implies present consciousness known together with the re-presentation of a past similar to it. When we think of Charles the First, and then of Cromwell, it may appear that unlike has called up unlike, but this is not the case, for it is part of a previous state of consciousness that has recalled the whole of the previous state, which it could only do in so far as the states reproduced are similar to the past states. Indeed, the very terms which we are forced to use—"re-calling," "re-producing," "re-collecting," "re-membering"—point to the fact of a repetition of a former state of consciousness; therefore, in memory like recalls like, but unlike has no recalling power.

As to its antecedents—Physiology teaches that there is no consciousness without the prior activity of the brain-cells.

As to succession—Consciousness is a succession, a flow, of manifestations consequent on the continuous working of the brain-cells, either of the same or of successive cells.

As to contrast—Consciousness is a succession of mental manifestations, each distinguishable from the rest, commonly in many qualities, but necessarily in time as past and present; the past being a present representation identified with, yet also *discriminated* from, a present presentation of an object, for identity involves non-identity of time.

As to continuity in time—Consciousness cannot be realised except in so far as the present suggests the past, as already stated, in a thread of identity.

As to what reproduces—The brain cells, by their movements, and in proportion to the judicious repetition of these movements, acquire, through the constructive agency of the nutritive process, the capacity for reproducing the same with increasing facility and certainty.

We shall in the next place exhibit the result of this inquiry in the following tabulated form:—

Knowing.

I. Category of Difference:—

Discrimination;

Discriminates objects, *i. e.*, objects in the sense-centre;

Discriminates objects as wholes and their parts according to the law of integration, or of Subject and Predicate.

II. Category of resemblance:—

Knowing cannot be a discriminating, without also being an identifying operation, for we only realise knowledge in so far as the present is known as identical with a present representation of the past. (Law of "Repetition," Identification, or Assimilation.)

The same operation which assimilates present cognitions with present representations of past, also takes note that certain individual objects, such as sheep, resemble each other, or possess certain qualities in common. (Law of Similarity, a mode of the Law of Assimilation.)

The phrenologists believe that there is an organ for number, but manifestly there can be no single organ for this, because the discrimination of objects, as differing from each other in number at least, is the very basis of knowing, whether, for instance, it be of the tangible, the visible, or the audible. They also claim to have discovered an organ which takes account of resemblance and analogy; but every perceptive organ must take cognisance of the identity of an object with itself from time to time, and since being conscious of resemblance among individual objects is only a more complex mode of the same operation, what need is there to postulate for it a separate organ? It seems to us, then, that there is a cerebral organ attached to each sense-centre, forming, together with the latter, a complex organ of perception; but that all other kinds of thought are to be accounted for by a certain *mode* of operation in these perceptive organs. The anatomical evidence in favour of this hypothesis is, at all events, stronger than that which can be urged in confirmation of the phrenological doctrine, one strong objection to which has always been that, in many instances, it ignored anatomical facts; moreover the psychology which it has embodied into its system is of the crudest character.

We have no doubt that in each hemisphere of the brain there are corresponding organs, just as we have two eyes, two ears, and as there are in the two retinae what are called identical points. In this paper, however, we have, for the sake of brevity, tacitly assumed that such is the case. The explanation of the fact that, with two hemispheres in the brain, we experience but a single flow of thoughts, must evidently be sought for in the assimilating agency of the intellect, coupled with the fact that there is nothing whereby the report of one hemisphere can be distinguished from that of the other.

Suggestions for rendering Medico-Mental Science available to the better Administration of Justice and the more effectual Prevention of Lunacy and Crime. By T. LAYCOCK, M.D., &c., &c., Professor of the Practice of Medicine, of Clinical Medicine, and of Medical Psychology and Mental Diseases in the University of Edinburgh.

(Read at the Annual Meeting of the Medico-Psychological Association, held at the Royal College of Physicians, August 4th, 1868.)

THAT medico-mental science is often at variance with the doctrines and decisions of the courts of law is a fact too well known and too generally admitted to need formal proof. It is almost as generally assumed that the scandalous failures of justice, which too often result, must be attributed to the defective education and knowledge of the profession. It is alleged that, as a body, we are for the most part ignorant and theoretical in matters relating to insanity, and if not ignorant, then presuming, and often using the little knowledge we possess, rather with the intent to rescue thieves and murderers from the legal consequences of their crimes than to help the administration of justice. It is certainly a fact which many of us lament that the corporate bodies of the profession generally, including the general medical council, ignore the subject as a distinct department of medical education; and consequently medical practitioners, not being duly trained, do sometimes appear to great disadvantage in courts of law. Medical shortcomings are not, however, the subject of my paper, but certain fundamental defects in the principles and procedures of the law which render medico-mental science sometimes even worse than useless, and always less useful to the commonweal than it might be, if rightly adapted to the needs of modern society. Nor would it be difficult to show that some of the crime and folly which occupies our courts and fills our reformatories, prisons, workhouses, and lunatic asylums, is capable of prevention by a well-devised use of medico-mental science. As these matters are wholly beyond the powers of the profession, I shall ask leave to move at the close of the discussion that a committee be appointed, with power to take such steps as may be thought necessary to secure a thorough inquiry by the Government into the relations of medical science to the administration of the law in regard to

all persons mentally disordered or defective, with a view to such improvements as may be practicable.

I do not presume to controvert the legal *dictum* that in this department, as in others, law in the abstract is the perfection of reason and common sense, but the contrary. The principle of the law is perfectly just and reasonable, namely, that both the legal responsibilities and the rights of an individual may be either limited or wholly abolished, provided that it be proved that he is mentally incapacitated for his duties or for the use of his rights by either bodily disorder or defect. So that in any trial, thus involving either the responsibilities or rights of an individual, two distinct questions arise,—firstly, whether the individual is or was mentally incapable; and, secondly, whether the incapacity is or was due to bodily cause, and not to ignorance and vice. The first is a question for a jury, to be established by evidence of the conduct of the individual; the second can only be determined according to the rules of medical art, and by those versed in the kind of facts which constitute evidence of bodily disorder and defect. It is obviously in recognition of this principle that the opinions of medical practitioners are held to be necessary to the administration of the law in these cases. Existing defects are not, therefore, due to error in the fundamental principles of the law, so much as to imperfect interpretation and application of those principles; and I shall shew that these are imperfect, partly because guided by obsolete medical doctrines, and partly because of defects in legal and medico-legal procedures. Some of these doctrines, indeed, so far from being in harmony with modern science, have really no ground in the common sense and experience of mankind. The legal responsibilities and rights of the young, termed infants in legal phrase, may serve as an illustration. The law in the abstract justly and rightly affirms that the young members of society are legally incapable and irresponsible in proportion to the incompleteness of their development, whether it be of body or of mind. Marriage is one of the first and most important of social duties, and the law therefore rightly undertakes to fix the age at which young persons are sufficiently developed to procreate and duly bring up children. This question, which is strictly within the domain of physiology and medical psychology as well as common sense, is thus settled by the law as to females:—In Ireland, a woman cannot marry without consent until she is 18 years old; in England she may marry at 16; but in Scotland a girl of twelve and a boy of

fourteen can enter legally upon this duty. Now, puberty, even in the South of Europe, is not attained so early, and is still later in Scotland, so that such a law, if prepared now for the first time, would be at once repudiated, as only applicable to other races of men in other climes. If we inquire how this strange notion came to be part of the law of Scotland, we find it was transmitted from ancient Rome; further inquiry shows Rome received the law from more ancient Greece, the great source of Latin literature and law; and going still deeper into antiquity, it seems probable that Greece received it from more ancient Egypt, or else from the great and still more ancient Aryan source of Western language and customs. The question of mental incapacity from disease or defect entered into and regulated all the proceedings as to person and property of the ancient Roman law. This principle has also been preserved to a great extent in Scotland as to property. But in England, while a person, equally as in Scotland, ceases to be a minor or an incapable at twenty-one, if he be at that age imbecile, foolishly prodigal, facile in temper, and weak in judgment, because undeveloped in brain and intellect, the ancient common sense distinction between idiocy as defect and insanity as disease is not merely lost sight of, but repudiated. Lord Westbury said approvingly in the House of Lords "originally there was a difference, but it has long since disappeared." And Lord Chelmsford said, on the same occasion (*viz.*, the discussion of the Lunacy Regulation Bill, March 12th, 1862), "under the existing law no person, however extravagant, foolish, or prodigal, could be made the subject of a commission of lunacy unless his acts were such as to lead a jury to the conclusion that he was of unsound mind, and a verdict founded on imbecility or weakness of mind would be set aside as contrary to law." In short, the courts, abandoning the true principle of law, proceed to discuss the metaphysical questions of a man's sanity or insanity. Milton has represented the fallen angels as sitting apart in hell, and discussing insoluble metaphysical questions like those raised in the courts, and a witty friend of mine affirms that the great poet did this to show that evil spirits were tormented, even in their recreations, by their bad propensities, and that their appropriate punishment was to be "in wandering mazes lost." So, in truth, too often is the course of things in our courts when insanity is the question discussed. Adults are subject to disorder and decline of the faculties which place them in the

same position in regard to property as infants and minors. Senile dementia—that “second childhood” which surely comes to every man and woman that lives long enough—may come on at an early age. In Scotland the same sound principles apply to these cases as to the others; but in England there must be the inquiry, not into incapacity, but into insanity. In Scotland the patient may secure protection privately, and avoid a jury-trial; in England his private affairs must be subjected at great cost to a commission sitting publicly, or to a jury.

The vice of irresistible, inveterate drunkenness is an apt illustration of the transitional form of incapacity and irresponsibility, in which physiological and pathological conditions combine. Nothing is more certain than the fact that a man having attained adult age, with all the responsibilities of a husband, father, and a citizen, becomes an incorrigible drunkard, and utterly incapable, from bodily causes, of performing his duties. He is too often a brutal ruffian, commonly a prodigal and a fool, yet the law of England does not provide for an enquiry into his capability of self-control, except in so far as to whether he be insane or not. Pending the solution of this insoluble question, he breeds drunkards to the third and fourth generation, ruins his family, and too often it is only bodily weakness, suicide, raving insanity, or an early death from disease, which saves him from the gallows. Surely common sense, Christian ethics, and medical science are agreed here that it is a question of capability for the performance of duty with which society has to deal, and not a metaphysical question as to insanity. Probably, in practice, such a method of dealing with these cases would prove the most efficient check on the vice itself.

That numerous vices and crimes originate in disordered brain function is one of the principal discoveries of modern medicine. Up to a late period the subjects of the disorder were classed with those who yielded to the temptations of either the world, or the flesh, or the devil; and even now those subtle morbid suggestions and impulses to do evil, which are of the essence of the disorder, are not unfrequently attributed, as formerly, from a very remote antiquity, to supernatural influences. A transitional kind, in which there are fixed ideas and delusions, yet a certain coherence of ideas, is termed partial insanity, monomania, and the like. To understand how the law deals with this class of cases it is necessary to examine its general principles. The Roman law treated raving maniacs

(termed *furiosi*) as irresponsible agents ; furiosity in Scotland is a term borrowed from Roman law, and means precisely what raving madness is in England. That persons who commit vice and crimes in consequence of disease are to be excused from punishment, is a natural principle of justice. And Lord Coke therefore truly says, that to execute an insane person is contrary to all law and pregnant with the greatest danger. The Code Napoléon—the criminal code, not less of ancient than of modern France—provides thus:—"With respect to every crime and every kind of misdemeanour, no man can be made accountable who, at the time he does the act, is under aberration of mind." The French courts avail themselves of the knowledge of experts in determining the state of mind of alleged lunatics, but even with this help the French judges cannot understand the true nature of will-insanity. If it be alleged that a criminal has an irresistible impulse to commit crime, they epigrammatically say the law has equally an irresistible impulse to punish him.

In England the old Roman notion of furiosity or raving madness is the measure of irresponsibility. If there be coherence of ideas with insanity of the will, the case is held to be partial insanity or monomania. Chief Justice Hale, notorious for his superstitious persecution of decrepit old women under the name of witches, is curiously, but significantly enough, a leading authority amongst modern judges, and was quoted as such in the House of Lords by two Lord Chancellors. It is needless to say that he disregarded in his *dicta* alike the principles of pathology and common sense, and of ethics founded thereon.

"Partial insanity," he says, "is no excuse. This is the condition of very many, especially melancholy persons, who for the most part discover their defect in excessive fears and griefs, and yet are not wholly destitute of reason ; and this partial insanity seems not to excuse them in committing any offence, for it is matter capital. It is very difficult to determine the indivisible line that divides perfect and partial insanity, but it must rest upon circumstances to be duly weighed and considered both by judge and jury."

What this judge meant by determining an indivisible line, and what are the circumstances a jury has to weigh, have never been clearly explained, although the attempt has often been made. Hale's *dictum* has, nevertheless, become practically part of the law of the United Kingdom. If an insane man commit homicide in consequence of his insanity, he is amen-

able, provided he be not wholly destitute of reason, and he is held to be not so destitute if at the time he committed the act he knew right from wrong. When public vengeance was balked by the acquittal of McNaghten, who shot Mr. Drummond in mistake for Sir R. Peel, a discussion arose in the House of Lords on 13th March, 1843, as to the law. The then Lord Chancellor, Lord Lyndhurst, declared that there was no doubt as to the law—that it is clear, distinct, and defined. In support of this opinion, he quoted from the charges to juries in cases of alleged insanity made by very eminent judges, and he showed how all concurred in the legal principle that a man is not to be held judicially insane, when tried criminally, if he knew right from wrong. Lord Brougham followed. It does not clearly appear (see Hansard, Vol. 67, 3rd series, p. 727) what opinions he held. He certainly differed from Hale and the other judges when he said, “It is perfectly clear that what was called partial insanity and what was called, very incorrectly, monomania, if it existed at all times, made a person a lunatic;” apparently meaning thereby a lunatic in a legal sense, *i. e.*, irresponsible. And although he seemed to agree with the current legal dictum in the main, he criticised the judicial explanations of it very severely. “What,” he asks, “was the test as laid down by their lordships? Here he might observe that he could have wished those learned persons had always used the same language, and that they had been pleased to substitute for certain vague indefinite expressions a more specific and precise phraseology. Their lordships had sometimes said that a man must be ‘capable of knowing right from wrong.’ That was the most common definition; but at other times they said he must be ‘capable of distinguishing good from evil’—a totally different expression, more vague and lax. A man might know right from wrong, and not know good from evil. Then there came in a third expression—‘capable of knowing what was proper.’ Another expression used was ‘what was wicked.’ So that there were four different tests in four different forms of expression—every one of them more vague, more uncertain, less easily acted on than the original one of right and wrong.” With that politeness, however, which became the august body he addressed, Lord Brougham added that although he was not sure that juries always knew “right from wrong,” when thus vaguely charged from the bench, he knew, and their lordships knew perfectly well, what those learned judges meant by “right and wrong;” but he

was not sure the public at large did. Again, Lord Campbell declared, in concurrence with Lord Brougham, that "he had looked into all the cases that had occurred since Arnold's case, and looking to the directions of the judges in the cases of Arnold, of Lord Ferrers, of Bellingham, of Oxford, of Francis, and of McNaghten, he must be allowed to say that there was a wide difference, both in meaning and in words, in their description of the law." The real cause of these acknowledged defects in the declaration of the law from the bench is in the utter obscurity and impracticability of the original *dictum* of Hale, upon which it is founded. There is, as the metaphysicians say, knowledge in *esse* and knowledge in *posse*—knowledge that is or can be remembered and applied, and knowledge that is not or cannot. When a cobbler, working at his last, tells me he was brought up to be a priest, and is in truth the pope, it may be fairly inferred, that at the time he affirms the fact his knowledge that he has been brought up, and is, a cobbler, is only in *esse* and not in *posse*. So it is, undoubtedly, in many daily actions of life, and never more commonly from disease than in insanity. In short, in insanity as in many other mental conditions, the conduct often depends, not on what the man knows in the abstract, but on what he remembers at the moment—a state of mind to which no one, nay, not even the individual himself, can give evidence except as to mere probabilities.

It is not surprising, then, that when a medical witness is asked to state his opinion in accordance with the *dictum*, the results are so unsatisfactory. It cannot be otherwise in the nature of things, and it may be a subject for consideration whether the practitioner should not always decline to answer the questions put to him, as being in a matter beyond his knowledge. I know of no parallel to the position of a medical witness, when asked whether the culprit at the bar knew right from wrong at the time he committed a certain act, than that of the Prophet Daniel when he was called upon to act professionally by a historical melancholiac, the great King Nebuchadnezzar. He has to divine both the judicial dream and the interpretation thereof.

Let us further inquire how other fundamental principles of law are applied to the procedure of the courts in cases of alleged lunacy. The law as to witchcraft held that a woman accused of it must be held to be guilty until it was proved she was innocent, and the result was that multitudes of innocent persons were found guilty in default of proof. In like

manner, the law holds that every man must be held to be of sound mind when he committed a certain act, and with like results from the like difficulty of proof. If the act has been done by a raving maniac, that he is insane is plain to the dullest understanding; but if he be an ordinary lunatic, poverty stricken and perhaps imbecile, what chance has he of fulfilling the requirements of the law? Even if charitable persons were to undertake the costly duty of securing the requisite proofs (which is rarely done), it may be, and often is, impossible to satisfy the judicial requirements. Thus a failure in evidence which would, and too often does, allow a ruffian to escape the punishment due to his crime, because the law holds every man innocent until he is proved to be guilty, establishes the guilt of the insane criminal, who otherwise would be held to be innocent, and an object of pity. I will quote a case in point as recited by Lord Lyndhurst in the House of Lords. "A man was indicted (in a Scotch court) for the murder of another by shooting him whilst he was going across a moor. The defence set up was insanity, and the delusion the prisoner laboured under was this:—He supposed the man whom he had shot to be an evil spirit, whom he was commanded by the Almighty to kill. No one doubted that if the facts necessary to support the defence had been made out to the satisfaction of the jury, the judge would have considered it a sufficient defence; but the facts were not made out, and the man was found guilty." Lord Lyndhurst related the case simply in illustration, and not in disapproval of the law. Indeed, it seems never to have occurred to the high legal authorities who discussed this question, that in cases like this, and in all cases of delusions, the only direct evidence possible of the fact is the statement of the subject of them. All that medical science can do is to say whether such statement is probably a true statement or not; and as to this, the evidence upon which he gives his opinion must be not only necessarily circumstantial, but only valid even to that extent, in proportion to the scientific and practical knowledge of insane delusions. This points to the need of experts to administer the law. I might add much as to the influence of strong prejudices upon the courts, to the disadvantage of medical witnesses as well as of the insane prisoner and his plea for mercy. These are so strong that even eminent men like the late Archbishop Whateley have not hesitated to advocate the indiscriminate hanging of all who plead insanity in cases of homicide. Yet if law, in the abstract, which

admits of extenuating circumstances, were duly applied instead of a hard-and-fast-line, metaphysically invisible as well as "indivisible," there would be little difficulty. Just as in those cases in which insanity is not pleaded, but great and sudden provocation, or infirmity of health and temper and will, the law mercifully recognises the validity of the plea, so that murder only becomes manslaughter or culpable homicide; so it might be held that when insanity is pleaded, while the culprit is declared guilty, an inquiry might be made as to how far there was in his state of health an extenuation of the crime, and what punishment, if any, be inflicted. I by no means overlook the fact that the treatment of the so-called partially insane in the courts has its origin in the deep-rooted conviction that they are capable of self-control, that they are, therefore, responsible agents, and that it is necessary to punish them criminally, so as to afford a salutary example to others. I shall not enter upon so large a question, but would simply state here my mature conviction that a graduated scale of detention would act far more powerfully as a deterrent than the punishment of death, which latter, indeed, is not only insanely desired in some cases of lunacy, but rationally desirable in preference to life-long detention.

The safety of life and property must, however, always be the great end of all law and justice, and to this end medico-mental science is most available by the prevention of vice and crime, whether by lunatics or not. A certain number of individuals in the United Kingdom lose their self-control and commit suicide, to the extent of one in about every six hours. This is the result of causes—exciting and predisposing—of imperfect brain nutrition, which, to a considerable degree, are preventible. So also with the majority of murders which are committed in defiance of an ignominious death, as is proved by such phrases as "I'll do it, if I swing for it," and the like. Further, there is a large number of criminals, termed in France the "*classes dangereuses*," and in English phrase "*known to the police*," and another still more numerous body, not exactly of this class, but incorrigible vagabonds, drunkards, mendicants. All these, numbering tens of thousands, are really so constituted corporeally that they possess no self-control beyond that of an ordinary brute animal—nay, less than a well-bred horse or dog. They are, for the most part, immoral imbeciles, so that however frequently they may have been subjected to prison or other discipline, the moment they are set free, they resume their vicious and criminal course.

Many of the imbeciles confined to life in asylums and work-houses only differ from these creatures in wanting the opportunity or the training for vicious crimes. They are all the mere weeds of society, but, like weeds, they multiply their kind, and thus continually keep up the breed. The law of hereditary transmission of mental and moral qualities, in them as in all other organisms, is inexorable. An army of police is required, in two divisions—one to watch and capture, and the other to restrain those moral imbeciles; one division being in the field, the other in the garrisons—the borough and county prisons. What would common sense indicate as the proper method of treating these cases? Surely, as what they are—*i.e.*, cases of incapacity—and would detain them under curators who would make them work. And as they are for the most part of the fertile age, and naturally propagate their kind, it would take care at the same time to prevent an increase of the breed. The law, however, allows them freedom to commit crimes, and add to the vicious population. The surgeon of a large prison in Yorkshire told me of one of these incorrigibles—a woman whom he delivered of twins in the prison—that the birth took place just nine months after a previous dismissal from prison—ripe, no doubt, for immediate conception. An illustration of how the jail bird begins its career as a nestling I quote from a number of the *Pall Mall Gazette* for May last, in the form of a dialogue which is stated to have taken place between a visiting Magistrate at one of the city jails and a juvenile offender serving out his three months:—“How old are you?—Please, sir, I’m thirteen. How often have you been in jail?—Please, sir, eight times. Have you ever been in Reading jail?—Please, sir, once. Have you ever been in Westminster jail?—Please, sir, once. How often have you been here?—Please, sir, six times. Why do you come here so often?—Please, sir, becous at Westminster the turnkeys knocks yer about with their keys. How do you contrive to get sent here?—Please, sir, I allus prigs in Holborn now.”

This poor jail-bird had even learnt politeness, yet he “allus prigs” when out of prison.

When a bill for providing that the sheriff might have power to send these habitual offenders to prison for a lengthened period, was discussed lately in the Convention of the Royal Scottish Burghs at Edinburgh, Lord Provost Chambers said he knew of a case in Edinburgh of a man seventy years of age who had spent forty years of his life in prison, a month

at a time. He had been somewhere about 103 times in prison for small offences.

Nor is the prison management of these imbeciles satisfactory. They are sometimes treated as lunatics used to be treated. At an inquest held upon a prisoner who died insane in Milbank Prison, the deputy governor testified that previous to his death the man was ordered to be placed in a penal service cell, having matted walls, for six months. And upon a late occasion there were observed at Milbank as many as a hundred imbecile and epileptic convicts confined in long galleries, padded several feet high with thick matting, to prevent the prisoners from injuring themselves against the walls. It has been alleged that each of these incorrigible moral imbeciles cost the country, including the cost of depredations, an average of £300 annually. If treated exactly as what they are, viz., as hopelessly devoid of that moral sense and judgment which give the power of self restraint, and in the spirit of Christian forbearance, kindness, and charity, they would be prevented multiplying their kind and made in a great degree self-supporting. A too apt illustration of the evil results which follow upon this gross neglect of the simplest principles of medical psychology is shown by the condition of the children brought up in the workhouses. They are described by Miss Hill ("Children of the State; the Training of Juvenile Paupers") as dull of apprehension, ill-tempered, indolent, and listless—incapable, spiritless, stupid to the last degree—in short, mere imbeciles. They indicate the traits of the rising generation of incorrigibles outside. Of the 300,000 educated in the workhouses, 80 per cent. are failures when brought into the world. A large proportion pursue evil courses, join the predatory classes, or fall stupidly into crime, or else they either return to the workhouse where they were reared or become inmates of the county asylum. I might, if time allowed, point out how drunken, vicious imbeciles, tainting their offspring to the third and fourth generation, serve to fill our asylums to overflowing, and that unless means be taken to restrict their personal liberty during the fertile period of life there must of necessity be a continual increase in the insane, imbecile, vicious, and degraded part of our population.

Conclusions.—If a royal commission were issued to inquire into these important matters it would have abundant evidence brought before it to shew:—1. That the present state of our jurisprudence in regard to persons mentally incapable and irre-

sponsible is in every way defective. 2. That the existing defects are not due so much to defects and errors in the fundamental principles either of law or of medicine, but rather to error and defects in the interpretation and application of those principles; partly in consequence of their obsolete character, and partly because of corruptions of the law. 3. That the doctrines laid down in 1843, by the twelve English judges, are of this obsolete character, and are, therefore, out of relation to the present state of medical science and experience. 4. That although medico-mental science is still imperfect, it has advanced so rapidly, concurrently with other sciences, during the last half century, as to be largely available not only to the better administration of justice, but also to the prevention of lunacy and crime.

On Aphasia, or Loss of Speech in Cerebral Disease: By FREDERIC BATEMAN, M.D., M.R.C.P. Lond., Physician to the Norfolk and Norwich Hospital.

(Continued from *Journal of Mental Science*, April, 1868, page 74.)

Having in the preceding pages endeavoured critically to review the question of the localisation of the faculty of speech, as illustrated by the labours of the French, Dutch, and German pathologists, as well as by those of the different branches of the Anglo-Saxon race, I now proceed to place on record a certain number of cases which have been observed by myself, and in several of which the clinical history was completed by a careful *post-mortem* examination.

In some instances it may be thought that I have described the clinical history with too much minuteness, and with a fastidious attention to apparently unimportant details; but the question we are now considering is involved in so much obscurity, that it seems to me that it is only by carefully studying the various phases of cases which we have an opportunity of closely watching, that we can hope to contribute anything towards the solution of one of the most complex questions in cerebral pathology—a question about which so much has lately been written, and about which it seems to me so little is at present really known.

It will be observed that in several of the following cases I have given the volumetric analysis of the principal solid in-

gredients of the urine. This, to some persons, may seem a work of supererogation; to those I would say that the diagnosis of cerebral disease is involved in so much obscurity, that the serious and conscientious observer is bound to avail himself of every collateral aid within his reach; and it cannot be otherwise than useful, systematically to calculate the amount of phosphorus and other constant or occasional solid ingredients of nervous tissue which are daily eliminated from the system.

The following cases present various forms of the affection, from the uncomplicated pure form of aphasia—where there is simply abolition or suspension of speech without any paralytic or other morbid symptom—to the partial or even occasional impairment of that faculty; and here I would remark that in making investigations with the view of elucidating any obscure symptom or disease, the common error into which many observers fall, is to confine their attention to the consideration of typical cases only—cases where the symptom or disease is well marked and defined; whereas, as much or more information may sometimes be gained from the careful study of exceptional cases, and of cases where the particular symptom or disease is only slightly marked.

Impressed with these views, I have for some time past made careful notes of all cases that have fallen under my observation, where the faculty of articulate language was affected in any way or degree, however slight, deeming it quite as useful to study cases where the lesion of speech is a mere epiphenomenon, as where it forms the principal or the sole morbid symptom.

Aphasia of the atactic form occurring as the earliest morbid symptom : some months later verbal amnesia : epileptiform convulsions : ultimately general paralysis.

William Sainty, a waterman, aged fifty-one, was admitted under my care into the Norfolk and Norwich Hospital, April 1st, 1865, with the following antecedent history:—He had always lived a temperate and steady life, had never contracted syphilis, nor suffered from any rheumatic affection—in fact, he had always enjoyed excellent health quite up to the period of the present attack, which was not preceded by any premonitory symptoms of brain or nervous disorder. On the 9th of December, 1864, after unloading his vessel, in which he had conveyed a cargo of goods from Norwich to Yarmouth, a distance of thirty miles, he went into a tavern with the intention of asking for some beer, when, to his astonishment and concern, he found he could not speak—the power of

articulation was suddenly and completely suspended. Nothing odd or peculiar had been observed in his manner, and he had only a few hours previously called at a merchant's office and arranged about a fresh cargo, when his aptitude for business was in no wise impaired. The loss of speech then was sudden, and was clearly unaccompanied by any other paralytic symptom, for although speechless, he, on the same evening, removed his vessel from one point of the river to another, and on the following day loaded it with a fresh cargo, after which, unaccompanied by any of his friends or comrades, he took the train to Norwich, and on his arrival walked from the railway station to his own home, a distance of a mile. His friends, alarmed at finding that his vocabulary was limited to the words "Oh! dear! oh! dear!" sent for a surgeon, under whose care he continued till a few days before he came to the hospital. I have not been able to procure any very accurate information as to the precise time during which the abolition of speech was complete; it would seem, however, that after three days he could say a few words, but that it was not till the expiration of a fortnight that there was any marked improvement; after this period the progress towards the partial recovery of his speech seems to have been gradual. Sometime in February he experienced a slight abnormal nervous symptom, characterised by numbness in one of the fingers of the right hand. A month later he had a kind of fit, falling down, and remaining for a few minutes unconscious.

Symptoms on admission.—His condition is that of a healthy looking man, with a remarkably intelligent countenance, looking me straight in the face when addressed, and evidently understanding all that is said; but although his ideas seem to arise in great number in his brain, and there is no want of sequence in his thoughts, he is unable to give expression to those ideas by articulate language, except in a very imperfect manner. There is, also, partial agraphia, for although just able to form one or two words, he cannot write a sentence, he being able to write fluently and well before the present attack. He has the proper use of all his limbs, which are free from the slightest abnormal sensation. Deglutition is unaffected. The tongue is protruded straight, and he can execute all the different movements appertaining to that organ. The only feature to notice in the tongue is, that the right half is slightly raised above the level of the left half, and is more flabby, and also that when told to protrude the tongue, he keeps it out a long time, as if from a defect of memory, probably not remembering what he had done. There is no abnormal sensation about the head, and the organs of special sense are unimpaired. He is very cheerful, and does not weep from emotional causes, like persons with ordinary paralysis; nor has he that distressed countenance usually observed in the subjects of grave cerebral disorder. The heart's action is feeble, with occasional intermittence, but no evidence of valvular disease. Pulse, 72. Urine, sp. gr. 1020, freely acid; no

albumen, and a volumetric analysis of the principal solid ingredients gave the following result:—

Chlorides	-	-	-	-	10.5 parts per 1000
Urea	-	-	-	-	26 " "
Phosphoric acid (in combination)	1.5				" "

So long a time having elapsed since the attack which had produced the impairment of speech, I felt that but little could be done in the way of treatment. I prescribed for him small doses of the phosphates of iron and zinc, with dilute phosphoric acid, and under this treatment, together with a careful attention to diet, he slightly improved, the improvement being, however, more marked in his power of writing than in speaking. Discharged June 3rd.

Shortly after his discharge he resumed his work as a waterman, when no untoward symptom occurred till January, 1866, when, after a morning's work, as he was going into his cabin to prepare for dinner, he fell to the ground quite unconscious, and came to himself in about a quarter of an hour; but his speech for some hours was more embarrassed than usual; there was, however, no paralysis on recovery, for he resumed his work the same day. At the end of February (a month later) he again fell in his cabin, frothed at the mouth, was livid in the face, and remained unconscious half an hour; on recovery, there was increased embarrassment of speech for some hours, but before night he was as usual. There seems to have been no convulsive movements on either of these two occasions. After the above date he had a similar fit every few weeks.

Re-admitted January 12th, 1867.—He seems still in possession of all his intelligence, has no paralysis, nor even diminution of motor power. He understands all that is said, but is affected with an incapacity to employ substantives, having lost the memory of words as far as that part of speech is concerned, and he will make use of a periphrase to avoid using the substantive required. If asked to fetch an object he will bring the right, but if he wants anybody else to fetch or give him anything, he more commonly asks for the wrong thing first, afterwards correcting himself, showing that he understands perfectly what he wants. If shown anything he will say that he knows what it is, but cannot say it. On being shown a purse, and being asked what it was, he answered, "I can't say the word; I know what it is; it is to put money in." Is it a knife? No. An umbrella? No. A purse? Yes. I showed him a poker. What is it? I know, but cannot say the word. What is its use? To make up the fire. Is it a walking stick? No. Is it a broom? No. Is it a poker? Yes, he said, instantly, with a smile evincing complete understanding of the question, and joy at the certainty that he had answered it right.

March 30th.—The house surgeon was called to him to-day, and found him stretched on the floor, twitching convulsively, with turgid

face, gnashing of the teeth, foaming at the mouth, eyes open and rolling, pupils dilated and insensible to light, breathing stertorous, skin cold and clammy. These symptoms continued for fifteen minutes, when violent jerking of the left leg and thigh occurred, the convulsive efforts ceased, and he gradually recovered his senses; there was no paralysis.

March 31st.—The patient had a sound sleep after the fit of yesterday, and to-day is as usual.

On showing him a tumbler glass he shakes his head, and says it is for beer, but cannot remember its name; he knows it is not called a basin, a mug, or a jug, and recognises the word glass directly it is named; but the next minute he has forgotten it, and cannot repeat it. He was also shown a warming pan, about which he became quite angry from his inability to remember its name; he, however, showed his interrogators what it was used for, with great despatch, and recognised its name the moment it was casually mentioned.

April 24th.—Suddenly taken speechless, with loss of motor power in the lower limbs, the upper extremities being unaffected. The fit was evidently entirely different from any other he has had; there were no epileptiform convulsions, simply faintness, speechlessness, and paraplegia. The pupils were equal and active; he appeared conscious of all that was going on around him, and as soon as he was put to bed he uttered confused sounds, but could not articulate.

25th.—The motor power in the lower limbs has partially returned; in fact, there is no actual paralysis this morning, there is simply want of co-ordinating power of the lower limbs; he can walk very imperfectly, supported by two persons, but cannot stand alone.

May 2nd.—I was summoned to him to-day, and found him in an epileptic fit, perfectly unconscious, pupils both contracted and immoveable, foaming at the mouth, with convulsions, which were confined to the right arm and leg and right side of the face; the right orbicularis palpebrarum was contracting violently; the left side of the body seemed unaffected; the convulsions soon affected both sides, the left, however, to a much less extent. Five grains of calomel to be put upon the tongue, and a turpentine injection to be administered.

3rd.—He is still quite unconscious—in fact, in a state of epileptic coma; pupils still contracted, and immoveable, and there is imperfect right hemiplegia, without loss of sensation.

4th.—The hemiplegia has passed off, there being only a little less power in the arm; consciousness is returning.

5th.—Pupils still contracted and insensible to light; he has recovered consciousness, and has evidently now the use of all his limbs. He cannot stand alone, but he walked some yards this morning, with the assistance of two persons. He put his hand to his forehead as if in pain, and he is becoming restless, and requires a person constantly by his side to keep him in his bed.

In a few days he had gradually recovered the power to stand and

even walk alone a few steps; he continued, however, quite unable to speak, although he would make certain sounds intended to convey his thoughts. It was soon found that his moral passions had undergone a change, and that from a particularly quiet, modest, and well-behaved inoffensive man, he had become indecent, exposing his person, revengeful, and spiteful. His mind soon gave way, he became imbecile and quite unmanageable, and it was soon found necessary to remove him to the Borough Asylum.

1868, *July 9th*.—I visited him to-day at the Asylum, and found him seated on a bench. He evidently recognised me, but was quite unable to speak a single word, and he evinced the greatest distress at his inability to converse with me. He had gained flesh, and looked well. Mr. Sutton, the resident medical officer, reported to me that about four months ago he had a series of epileptiform convulsions lasting forty-eight hours, and that he was, to all appearance, dying; he, however, soon recovered from this condition, but continued very helpless and unable to walk or even stand without assistance, although when supported by two persons he could walk a considerable distance. Mr. Sutton further reported that although unable to articulate, he gesticulates frightfully, and thus endeavours by the language of signs to supply the loss of articulate language. In further illustration of his psychological condition, I would add that his sister informs me that some months since, upon the occasion of his nephew playing the cornet in his presence, he, supported by two women, danced to the tune.

The above case seems to me to be pregnant with material for careful thought and study, and if I have dwelt thus minutely on its daily progress, it is because I apprehend that it is not common to have the opportunity of watching for so long a time a patient presenting such an exceptional chain of symptoms. I shall now proceed to analyse the various phases which the clinical history of this man has from time to time presented.

The sequence of morbid action here is curious. The very first morbid symptom was total loss of speech; after partial recovery of the faculty of speech, verbal amnesia was observed—loss of the memory of words limited to substantives—then epileptiform convulsions, and, alternating with each other, hemiplegia and paraplegia; and eventually this curious chain of symptoms merged into a state of general paralysis.

The loss of speech was, in the first instance, of the atactic form, for no amount of prompting would help him. As the abolition of speech was complete, it is, however, impossible to say whether or not there was at this time verbal amnesia

also. Probably there was, for when the atactic symptoms gave way, loss of the memory of words was soon observed. Dr. William Ogle* mentions two cases in which, after recovery from the atactic form of aphasia, amnesia remained, which he thinks must have co-existed at the earlier stage with the ataxia; in both Dr. Ogle's cases, however, there was hemiplegia, indicating a much more extensive lesion of brain than could have been suspected at this stage of Sainty's history.

The next feature to which I wish to call attention is, that not only was the total loss of speech the earliest symptom, but it was for some days the sole symptom. There was no paralysis—there was simply privation of the power of speech; it was simple aphasia, in the rigorous sense of the term—and cases such as this would seem to show that the faculty of speech may perish, or be suspended, *alone*, and that this faculty is special and independent.

The muscular apparatus, the instrument which served for the articulation of words, was in a perfect state of integrity; but an indispensable element was wanting. When the aphasia had assumed the amnesic form, the defect was dependent on loss of the memory of words; but in the earlier stage, when the atactic form was present, was the defect due to the loss of the memory of the movements necessary for speech?

The complete but temporary loss of speech in the early stage, I presume was the result of a simple ephemeral cerebral congestion, probably situated in the same part of the brain as that, which, being subsequently more seriously injured, gave rise to the more permanent symptoms.

I think we may assume that the disease was limited to the convolitional grey matter, as there never was any persistent paralytic symptom indicative of lesion of the central ganglia. The occurrence of paraplegic symptoms after one fit, and of hemiplegic symptoms after another, is worthy of notice. I will not attempt to offer any theoretical speculation as to the cause of the temporary loss of motor power in the lower limbs. I simply notice it as singular and exceptional; the transitory hemiplegia, I presume, can be explained on the supposition of temporary obstruction, or rather spasm of the middle cere-

* On Aphasia and Agraphia. St. George's Hosp. Reports, Vol. ii., 1867. This interesting and highly instructive communication contains the careful analysis of 25 cases, which have furnished Dr. Ogle with the material for one of the most useful papers that have been published on this subject.

bral artery, and the term *hemispasm*, as suggested by Dr. Hughlings Jackson, would be more appropriate to such a condition than *hemiplegia*.

I wish to call particular attention to the fact that the lesion which could produce total abolition of speech for a considerable time, did not in the least impair the intellect, for when he came under my care some months afterwards, he seemed possessed of more intelligence than most men of his class. I may here remark that the opinion of those who have written upon this subject is divided, as to whether the intelligence is, as a rule, affected in aphasia. Trosseau held the opinion that the mental faculties were always more or less impaired; on the other hand, the case of Professor Lordat has been cited as a proof that the aphasic condition may exist with the highest amount of intellectual activity. It seems that the illustrious Montpellier professor was at a certain period of his life affected with aphasia, and he has himself stated that, although speechless, he experienced no restraint or difficulty in the exercise of thought and imagination. He prepared his lessons, he arranged his subject, and was able mentally to dwell on the salient points. "*Je possédais complètement, dit-il, la partie interne du langage, je n'en avais perdu que la partie externe.*"

The question has arisen in my own mind, as to whether, during the early part of Sainty's illness, he was capable of making a will? The solution of this medico-legal question of the testamentary capacity of aphasics I will leave to the alienist physician.

Amnesic Aphasia, with right Hemiplegia; Softening of posterior part of left hemisphere; Anterior lobes healthy.

On the 20th of March, 1867, I was requested to see Mr. N——, a merchant, æt. 51, who, for a period of three or four months, had experienced abnormal symptoms, indicating want of brain power. For some time previous to this date his friends noticed that he had become unusually quiet, less communicative, and dull. Shortly before Christmas, he had a sort of fainting fit, and soon afterwards he began to get confused in his conversation; he would let objects drop from his right hand, and do awkward things at the table—on one occasion he poured vinegar on his repast instead of pepper. It was soon observed that he could not write a letter. From inquiries which I instituted in reference to his habits, it seems that he had led a fairly temperate and steady life, and that the only cause which could be assigned was the excitement and mental tension resulting from an

entire change of occupation; he having a few years previously exchanged the comparatively mechanical and automatic life of a country village, for a business of a speculating character in a large town, necessitating railway journeys to London twice a week.

During my somewhat lengthened interview with him, he never initiated any subject of conversation. When I questioned him, he seemed to get confused, and was conscious of this confusion, saying he could not find words to describe his symptoms. What answers he made, however, were given quite coherently, but in the fewest possible words. He seemed to understand everything that was said, but he had, to a certain extent, lost the memory of words, and would call things by their wrong names—for instance, being in a room where the fire was burning particularly brightly, he said, "How bright the poker looks." The person to whom he was speaking said, "You mean the fire." "Yes," he said, "I mean the fire." He would be thus confused in the choice of words to express his thoughts, and the knowledge of this defect was a source of distress to him. The idea was conceived, but the means of communication with the external world did not exist. He complained of numbness in the right arm and leg, and the tactile power of the right hand was impaired. The heart's impulse was feeble, with no abnormal sound; the pupils were sluggish, and he complained of frequent dizziness and of frontal headache. His pale and pasty aspect, diminished secretion of urine, and other symptoms caused me to deem it necessary to look carefully into the condition of the kidneys. The analysis of the urine gave the following results:—quantity passed in 24 hours, 26 ounces, sp. gr. 1030, no albumen, some pale lithates. A microscopic examination revealed the presence of amorphous lithates, a few oxalates, and several oil globules and fat cells.

Chlorides	-	-	-	-	45	parts per 1000
Urea	-	-	-	-	16	" "
Phosphoric acid, in combination	-	3·2	"	"	"	"

The condition of this patient was not materially altered for some weeks, when, after dressing himself one morning, he was profusely sick, and his symptoms suddenly culminated into an apoplecticform seizure, with right hemiplegia and total loss of speech, the latter symptom being the result of a state of coma, from which he never rallied.

Autopsy.—There was considerable congestion of the veins on the convex surface of the brain, but there was no opacity of membranes or other morbid appearance, either on the upper surface or at the base. The vessels composing the circle of Willis, and the arteries generally, were quite healthy, both cerebral arteries being specially examined and traced along the fissure of Sylvius, without any abnormal appearance being detected. At the point of union of the middle third with the posterior third of the convex surface of the left hemisphere, was a

dilatation, or bulging out of the arachnoid, giving the appearance of a cyst. This contained at least two drachms of serum, the evacuation of which disclosed a tolerably well circumscribed portion of softened cerebral tissue, of about the size and shape of an apricot, with its upper segment depressed, so as to form a cup-shaped cavity. It was here the serum was lodged, and there was at this spot an actual destruction of cerebral matter; the softened tissue was of a yellowish grey colour, resembling a strong solution of gelatine in appearance. In the centre of this softened portion was a very small clot, or rather layer, of black blood, of about the size of an ordinary wafer. From the small size of the clot, and the great extent of the softening, it must be inferred that the softening preceded, and was the cause of the clot, and the recent date of the sanguineous effusion would also favour this view. The frontal convolutions were examined with great care, especially the third, and the substance between it and the corpus striatum, but these structures were found quite healthy. The disease was, in fact, limited to the posterior third of the left hemisphere.

The heart was covered with an unusual layer of external fat; its muscular substance was pale and flabby, and its walls attenuated. The kidneys were healthy, but congested, and somewhat below the normal size. The spleen was very soft and friable.

Doubtless it will be said by some that this is scarcely a case of aphasia. It is certainly by no means a typical instance of the affection, like the preceding case; but as I am treating of lesion as well as loss of speech, I think it deserves recording as an instance of the loss of the memory of words and impairment of the faculty of language, dependent upon softening of the posterior part of the left hemisphere, with perfect integrity of the frontal convolutions and of the anterior lobe generally. In the former part of this essay, I have already cited a case of Abercrombie, somewhat resembling this, and where the softening was also found in the *posterior* part of the left hemisphere.

Right and subsequently Left Hemiplegia, with Lesion of Speech.
Frontal convolutions sound.

John Sutherland, a shoemaker, aged 60, was admitted into the Norfolk and Norwich Hospital, December 22nd, 1866, with the following history. He had not been a drinking man, had smoked very little, had suffered from gonorrhœa, but had never had syphilis or rheumatic fever. Whilst at work on September 4th, he suddenly lost the entire use of his right side, and also of his speech. The loss of articulate language was almost complete for about a fortnight, at the expiration of which time he could just make himself understood by those who knew

him well; the partial recovery of his speech coincided with a little returning motor power in the leg, but it was not till two months later that there was any improvement in the hand.

Condition on admission.—There is still considerable loss of power in the right arm, and the fore arm is contracted on the arm; he walks with difficulty, but there is less impairment in the use of the leg than the arm.

The memory and intellect are unaffected; he answers questions remarkably readily, and there is now no hesitation in his speech, but he speaks in a muffled, unnatural tone, as if the mouth was full. There is no evidence of cardiac disease, no unilateral sweating; he fancies he cannot smell as well as before the attack.

There was nothing in the treatment of this case to record, except that some weeks after his admission, galvanism was twice applied to the right leg, but this seemed to aggravate his condition, for in a few days there was complete paralysis of this limb.

Some days later he had a severe apoplectic seizure, resulting in paralysis of the entire *left* side, with great difficulty of speech, and he died in a few days.

A most careful *post mortem* examination was made, which I will not describe in detail; suffice it to say that the loss of motor power on the two sides was explained by a clot in the central part of each hemisphere; there was no obstruction of the middle cerebral arteries, and we clearly satisfied ourselves that the frontal convolutions were in no wise affected.

Independently of the integrity of the frontal convolutions, there are one or two other points in this case calling for a passing remark. It will be observed that galvanism caused a decided aggravation in his symptoms. This powerful remedial agent cannot be used with too great caution and discrimination in cases of paralysis, and I take blame to myself for having allowed its use here; for the contracted state of the forearm was indicative of a state of irritation and of exalted polarity of the nervous tissues, likely to be aggravated by electrical stimulus. Although the increase of the dextral paralysis was unaccompanied by any fresh aphasic symptoms, it will be observed that the occurrence of left hemiplegia coincided with great difficulty of speech. Those who view cases partially and distort them to suit their own notions, would, in a statistical table, put this down as a case of left hemiplegia with aphasia; whereas it is evident that the difficulty in speaking which occurred during the last few days of his life, was due to a semi-comatose condition, induced by sudden cerebral hæmorrhage, and which rapidly ended in death. I have recorded his fancied loss of smell,

because I think it important in all cases to notice the state of the olfactory function.

Aphasia, with right hemiplegia; no lesion of anterior lobes.

The subject of this case, Mr. C. G——, was a gentleman, aged 36, who had led a very gay life, and who had on several occasions been affected with a severe form of venereal disease; he had also suffered from rheumatic fever. For many years he had been at times the subject of great mental excitement, and even to some extent of mental delusions. There was no hereditary predisposition to insanity in his family, but two of his brothers were affected with paralysis of the right side, the paralysis being in one of them attended with considerable impairment of the speech. In the year 1865 he entered into the married state, and, four months afterwards, his habitually excited condition much increased, and it became necessary to place him in an asylum. He now soon began to hesitate in his speech, and to give evidence of the loss of the memory of words; his power of writing also became impaired. Some months later he was suddenly attacked with convulsions, followed by right hemiplegia, with total loss of speech, and he died in a few days. I was invited by his medical attendant to be present at the autopsy, when there was found evidence of chronic thickening of the arachnoid, with congestion of the pia mater of the left side especially; there was no clot, no degeneration of cerebral matter; the anterior convolutions were especially examined, and found quite healthy. The most remarkable appearance that this examination disclosed, was a deposit of rough bony matter, exostosis, at the centre of the fossa, corresponding to the middle lobe of the brain on the left side, and to this rough surface the cerebral membranes were slightly adherent.

In the absence of any more decided cause, I presume the diseased condition of bone might account for the convulsions; but the case is curious from the fact of the hemiplegia being so decided without any disease of the central ganglia, or of the hemispheres. The *fons et origo mali* was undoubtedly the syphilitic taint. The occurrence of dextral paralysis, with dysphasia, in his brother, is just worthy of observation; in the account of Dr. Scoresby Jackson's remarkable case, it is stated that another member of the same family was affected with lesion of speech and paralysis of the right side.

In reference to the subject under discussion, I wish more particularly to call attention to the fact that this and the two preceding cases may be considered as directly opposed to Professor Broca's theory; in all three the frontal convolutions

were examined with a scrupulous care, and were found quite healthy, and in the case of Mr. N——, which was a marked instance of the amnesic form of aphasia, the lesion was not near the anterior lobe at all, being situated at the posterior part of the upper surface of the hemisphere. With every desire to avoid the common error of drawing definite conclusions from a limited number of observations, I would add that three negative cases, supported by *post-mortem* verification, go far to outweigh three hundred cases, apparently admitting of a different interpretation, but where no autopsy was made.

It is somewhat singular that in each of the above three cases, there existed an abnormal condition of the left side of the base of the skull. In one case, as above stated (Mr. C. G.), there was actual *disease* of bone; in the case of Mr. N—— there was an unusual development of that part of the petrous portion of the left temporal, which corresponds to the perpendicular semi-circular canal; and in Sutherland's case, there was a remarkable bony prominence in the left middle fossa, not existing on the other side. It will doubtless be said that unsymmetrical development of the two sides of the skull is not uncommon. I quite admit this, and I desire simply to record what I have observed, without attempting to draw any inference from such observation. I cannot but think, however, that it would be extremely desirable, in future autopsies of persons who during life exhibited symptoms of lesion of speech, that the condition of the bones of the skull should be minutely examined, and any unusual appearances accurately recorded.

Loss of Speech, with Paraplegia; Spinal symptoms.

George Green, a shoemaker, æt. 38, was admitted into the Norfolk and Norwich Hospital, on February 10th, 1866. Has had syphilis, but never suffered from any rheumatic affection. His first symptom was pain in the forehead and dimness of vision, for which he was treated as an out-patient at University College Hospital in the early part of 1864; up to this period he had been a most inveterate smoker, which habit he at once discontinued, at the request of Dr. Wilson Fox. During the summer of 1864, whilst at work, he suddenly lost the power of speech, there being at the same time an aggravation of the habitual frontal pain, but no symptom of paralysis, and he resumed his work next day. The total cessation of speech lasted about twenty minutes or half an hour, when the only symptom in connection with the power of speech was a slight hesitation and embarrassment, which lasted three or four days, and then as far as his

speech was concerned, he was as well as ever. In about three weeks after the above symptoms, he was obliged to discontinue his work in consequence of being seized with a tingling feeling, running from the extremities of the right fingers, along the arm to the top of the shoulder, and up to the right angle of the mouth; there was evidently partial paralysis, as he could not hold anything, and there seems to have been anæsthesia, as he speaks of numbness and loss of feeling; the paralytic symptoms were entirely confined to the right upper extremity. These symptoms disappeared in about two hours, and he resumed his work, no treatment having been adopted. About January, 1865, he began to feel a tired sensation in his legs, as if he had been walking a long distance; at the same time he noticed some difficulty in passing his water, and an habitual constipation began to increase. Six months later he again lost his speech whilst reading, the loss of the power of utterance being preceded by a swimminess in the head and dimness of vision: he went to bed, fell asleep, and after three hours woke with the speech restored, but only a little embarrassed; the next day all was right. He has never had dysphagia, and when the power of speaking has been suspended, the movements of the tongue have been unimpaired.

Symptoms on admission.—He is quite unable to stand or walk without assistance; there is no deviation of, or pain on pressure over the spine, except slightly at the neighbourhood of the lower dorsal vertebræ; there is no paralysis of the upper extremities, and the organs of special sense are unimpaired. The tongue is furred, the bowels are constipated, rarely acting more than once a week; there is difficulty in passing his water, but only at night when in the recumbent posture. There is no evidence of cardiac disease.

In the absence of any positive therapeutic indication, and with the possibility of his symptoms being due to a remote syphilitic cause, I prescribed small doses of perchloride of mercury, and a cathartic electuary at bedtime.

March 26.—For several days has not felt so well, has had but very little sleep; had an attack yesterday similar to his former ones, but much slighter in degree—the speech was affected for about two hours, but much less so than on former occasions. He attributes his relapse to want of sleep; he complains to-day of tingling and numbness in the left little finger, which has been present for four or five days.

He derived some slight benefit from treatment, and left the hospital on the 12th of May. Thinking this a case in which it was very desirable to ascertain in what proportions the principal solid ingredients of the urine were present, I made a careful volumetric analysis of that secretion a few days before his discharge, with the following result:—

Chlorides	-	-	-	-	7.5 parts per 1000
Urea	-	-	-	-	17 " "
Phosphoric acid (in combination)	1.1	"	"	"	" "

Quantity passed in 24 hours, four pints, sp. gr. 1014; reaction, alkaline.

Re-admitted December 1st. Omitting unimportant details, I pass on to January 19th, 1867, when I find the following entry:—He awoke in the middle of last night, and found that he had lost his speech, this phenomenon being preceded by violent pains in both brows, just above the external angular process. He feels the pain in his forehead to-day, but the speech is now all right.

22nd.—He has vomited some bilious matter, and had early this morning a tingling up the right arm up to the side of the mouth.

February 16th.—No marked difference in his symptoms since admission, except that there is now rather sharp pain caused by pressure over the 8th and 9th dorsal vertebræ, and from this spot downwards; for some weeks past also there has been pain at this region when not touched. This patient soon afterwards left the hospital, and I heard nothing more of him, till his father came one day to say he had died quite suddenly. I regret I was not permitted to make a *post-mortem* examination.

The history of this patient is suggestive of the caution with which we should accept any statistics based upon cases only casually observed, or which have been under observation but a short time. Had this case been reported in its early stage, when there were abnormal symptoms present in the right upper extremity, it would perhaps have been recorded by some enthusiastic aphasiographer, as a case of aphasia with imperfect right hemiplegia, and it would thus have been cited with others to prove the correctness of Dax's theory; whereas, as time elapsed and other links were added to the morbid chain, paraplegia set in, and in fact there never was really any persistent paralysis of the upper extremities.

I do not wish to indulge in any hypothetical speculations as to the seat of this man's disorder. There was never any persistent symptom pointing directly to cerebral disease; whereas the persistent paraplegia and loss of function of the bladder and rectum, together latterly with tenderness and pain at the lower part of the spine, justified me in looking upon his symptoms as due to disease of an insidious nature in the spinal cord.

I have already mentioned, in a former part of this essay, a case reported by Dr. Maty, in which impairment of speech was one of the symptoms of spinal disease, and Abercrombie* has related three cases in which lesion of speech was accompanied by spinal symptoms; in the first of these there was

* On Disease of the Brain and Spinal Cord, pp. 333. 356. 410.

found after death suppuration between the cord and its membranes, the brain being perfectly healthy; in the second case, no disease whatever was found either in the brain or spinal cord, or in the bones of the spine; although the symptoms during life were those ordinarily indicative of spinal disease in the third case there was undefined suppuration of the cord.

Atactic Aphasia occurring as a climacteric symptom.

Anna Maria Moore, æt. 47, a labourer's wife, of a strongly marked nervous temperament, came under my observation as an out-patient of the hospital on Nov. 9th, 1867. She was the mother of ten children, had miscarried two years previously, had never enjoyed her usual health since, and menstruation from that time had always been irregular and too frequent. In February she had a severe sore throat, with ulceration of the tongue and of the mucous membrane of the cheek; and during this attack she lost the power of speaking for three days. Her speech continued all right till June, when the throat became similarly affected as in February, but to a less extent, and she again lost her speech. This time, however, the defect was not of a transitory character, as on the former occasion, for it continued up to the time of the admission into the out-patient department of the hospital.

On my asking her what ailed her, she could not make herself understood; she seemed, however, to understand perfectly what I said to her; and there was an attempt to talk, resulting in a nervous, unintelligible stutter. She seemed to have the proper use of her tongue, which was protruded straight; deglutition and phonation were unimpaired. At the expiration of a week, finding there was no return of the power of speech, she became an in-patient in the hospital.

Nov. 11th (two days after admission).—At my visit to-day, to my astonishment, she addressed me quite naturally. On making inquiries, I ascertained that when first admitted into the ward nobody could understand her. On getting up the next day she found she could speak better; the improvement continued during the day, and this morning she speaks as well as ever.

Nov. 23.—No return of her inability to speak having occurred, she was this day made out-patient.

1868. July 1.—Presented herself at the hospital to-day. The speech is impaired; she is, however, menstruating, and she says her speech is always more embarrassed at the period of menstruation.

June 29th.—Speech very bad to-day; can only express herself with the greatest difficulty. Menstruation, which should have begun some days since, has not yet occurred.

Feb. 12th.—Menstruation still deferred. For a period of three days, since her last visit, she could scarcely speak at all.

Without dwelling on the further details of this case, I would merely observe that the urinary secretion varied considerably in quantity, and she seldom passed a fortnight without what she called "a stoppage"—evidently an attack of painful micturition, with partial suppression. It seemed desirable to make a volumetric analysis of the urine, which gave the following result as to the principal solid ingredients:—

Chlorides	.	..	7 parts per 1,000
Urea	..	..	19 "
Phosphoric acid in combination		1.8	"

Quantity passed in 24 hours $3\frac{1}{4}$ pints sp. gr. 1020, freely acid; no albumen. In reference to the treatment of this case, I found diffusive stimulants of service, and she subsequently derived considerable benefit from the bromide of potassium.

On analysing this patient's symptoms, it is clear that the defect of the speech was atactic, for no amount of prompting could assist her in the least; there was no amnesia. What was wanted was not the word, but the recollection of the process by which to give it utterance. I do not apprehend that the faculty of language was impaired in its intimate seat, for she was in no wise deprived of ideas necessary to serve as a pabulum for language, but there was suspension of the power of co-ordination necessary to the production of speech. I presume the embarrassment of speech was due to what M. Auguste Voisin calls, "*l'interruption plus ou moins complète de l'incitation volontaire*," or, to use the words of Todd, "There did not exist that relation between the centre of volition and that of intellectual action which is necessary to give expression to the thoughts in suitable language; the centre of intellectual action had full power to frame the thoughts, but as the will was not prompted to a certain mode of sustained action, the organs of speech could not be properly brought into play."

The fact of the dysphasia being aggravated at the menstrual periods is worthy of notice. It first occurred after a menorrhagic flux, and the whole morbid chain of symptoms may be considered as climacteric. M. Delasiauve has cited the case of a lady who for three years, at each menstrual period, was affected with mutism and partial paraplegia, being at those times only able to make herself understood by signs.*

* Journal de Médecine Mentale, 1865.

Another interesting feature in this case to which I would call attention, without, however, drawing any inference from it, is—that the lesion of speech first occurred after a severe attack of sore throat. I regret I have not been able to ascertain whether the throat affection was of a diphtheritic character, but the coincidence of the two symptoms is deserving of notice.

It may, perhaps, be said that cases like the above are common enough; possibly they are, but their study is not the less interesting on that account; and here I would ask what was the ultimate cause of the symptoms observed in this patient? I have heard the term nervousness applied to such cases, but this word throws no light on their pathology. Nervousness, like hysteria, is a word frequently used as a cloak to our ignorance.

Is it not possible that the abnormal symptoms might be due to some form of uræmic poisoning? There were two circumstances rather favouring this view—viz., the partial retention of a fluid which had for years been periodically thrown off, and the frequent partial suppression of the urinary secretion. In reference to this latter hypothesis, it is true that the volumetric analysis of the urine (made at a time when the secretion was in its normal quantity) did not disclose a predominance of any particular ingredient; still, I cannot help thinking that in this and similar cases, where the symptoms are intermittent, they may be due to some element in the blood which has a deleterious effect upon the cerebral circulation.

It will be observed that there is no abolition of a faculty in such cases as the above, but simply an obstacle to the manifestation of such faculty. The faculty of language is present, but one of the processes is wanting by which it is brought into communication with the external world.

Left Hemiplegia with Aphasia; No disease of frontal convolutions; Extensive disease of right hemisphere; Vegetations on aortic and mitral valves; Fibrinous blocks in the Spleen.

William Lemon, a gasfitter, æt 40, was admitted into the Norfolk and Norwich Hospital on January 4, 1868, with the following antecedent history:—He had been ailing more or less since Midsummer, but had been able to continue his work till early in November. A fortnight later he was suddenly seized with left hemiplegia, and considerable embarrassment of speech, to such an extent that a stranger could

not understand him at all. His power of speech gradually improved, and at the end of a fortnight he could speak nearly as well as usual.

Condition on admission.—There is complete motor paralysis of left leg and arm; anæsthesia only partial, if any. He has no pain or abnormal sensation in the head, and the organs of special sense are unimpaired, and there now remains but very slight embarrassment in his speech. Urine sp. gr. 1023, freely acid, slightly albuminous and loaded with lithates. There is a well-marked double bruit heard nearly all over the anterior part of the chest, but at its maximum intensity at the apex, the diastolic murmur being the most marked. Pulse 84, quite steady and regular, but very hard, sharp, and almost dicrotic.

January 18th.—This patient continued much the same as on admission up to 6 p.m. yesterday, when the nurse, on taking him his tea, noticed he had lost the power of articulation, although he seemed to know all that was going on; a few minutes before the power of speech was lost he spoke a few words, implying that he saw imaginary beings around his bed. The power of articulation was never recovered, and he soon became comatose, and died early this morning.

Autopsy.—Heart: weight 19 oz.; right ventricle contained coloured and decolorised clots extending just beyond the pulmonary valves; right auriculo-ventricular orifice admitted four fingers and a thumb; tricuspid valves healthy; walls of left ventricle immensely hypertrophied; dilatation of left auriculo-ventricular orifice; the mitral and aortic valves were both covered with fibrinous vegetations, apparently recent; there was commencing atheroma to the extent of an inch and three quarters at the origin of the aorta. Liver: weight 4lbs. 2 oz., healthy. Kidneys: the right weighed $11\frac{1}{2}$ oz., the left 8 oz., both in a state of intense congestion. Spleen: very soft and friable, contained several fibrinous blocks. Brain: stripped of dura mater, it weighed 3lbs. $3\frac{1}{2}$ oz.; there was no abnormal vascularity or other morbid appearance, either on its convex surface or at the base. There was a general flattening of the superior surface of the right hemisphere, which was somewhat less developed than the left, and its convolutions were shrunk. The brain was carefully sliced, and no abnormal appearance disclosed until opening the lateral ventricles, when a yellow stain was seen on the upper portion of the right corpus striatum; on a level with this body, but behind, and external to it—at about the middle third of the hemisphere—was a softened portion of about the size and shape of a large walnut; there was also slight softening of the thalamus at its posterior part. On cutting into the corpus striatum it was seen that the posterior two-thirds had undergone the softening process, being of a yellowish hue, and waxy consistency. Antero-posterior slices were made in both anterior lobes, but no morbid change revealed; the frontal convolutions were examined with great care, and the right and left convolutions compared, but they seemed perfectly healthy; but as the softening of the right hemisphere

approached so near the surface of the right side—certainly within half an inch of Broca's region—it is quite possible that some slight alteration of the posterior part of the frontal convolutions may have existed, not patent to our means of investigation. The vertebral and basilar arteries were healthy, as also the termination of the carotids. There was no obstruction of the middle cerebral arteries, but that on the right side, when traced along the fissure of Sylvius, presented at the point of its first bifurcation a milky appearance, to the extent of about a quarter of an inch in length. The olivary bodies were specially examined, and were quite healthy, as were also the medulla oblongata, cerebellum, pons, and crura cerebri.

Microscopic Examination.—A separate examination was made of the corpus striatum, and also of the softened hemisphere. In the corpus striatum there was no proper brain structure; an absence of vessels and nerve fibres; an abundance of granular matter. In the portion taken from the hemisphere there was an absence of nerve fibres, and the vessels were coloured with fawnish pigment; there was an abundance of granular matter, with here and there a fat globule.

The above case is extremely interesting from several points of view. In the first place, I would observe that the cardiac disease was doubtless the primary cause of the softening of the cerebral tissue; and it is extremely probable that some vegetations, similar to those observed on the aortic and mitral valves, had become detached, and thus had been carried into one or more of the cerebral vessels, although no positive evidence of obstruction existed after death.

The condition of the spleen is confirmatory of this view, as the fibrinous blocks found in that organ undoubtedly betokened an obstruction to the splenic circulation similar to that which had probably produced the cerebral symptoms. It would seem that these fibrinous deposits in the spleen have been frequently observed in the autopsies of aphasic patients. In four of Dr. Wm. Ogle's cases this condition of spleen was observed; and in each case, as in that of Lemon, there was also disease of the heart.

It will be observed that the lesion of speech was associated with paralysis of the *left* side. This coincidence of aphasia with left hemiplegia is, I believe, much more common than is generally supposed. I have at the present time an instance of it under my care at the Norwich Hospital, and I have already, in the preceding pages, mentioned cases where this combination of symptoms was observed. Dr. Crichton Browne has informed me that he has collected six cases of

left hemiplegia with aphasia, which I trust he may be induced to place on record.

If the above observation is in direct antagonism to M. Dax's theory of the localisation of speech in the left hemisphere, it is *a fortiori* opposed to that of Professor Broca; for although the softening was suspiciously near the third frontal convolution of the *right* side, the *left* frontal convolutions, as indeed the entire left hemisphere, presented no trace of disease whatever.

I could mention several other most interesting cases which have lately fallen under my own observation, where loss or lesion of the faculty of articulate language was a prominent symptom, but this essay has already far exceeded its original limits, and I trust that the observations I have recorded may have been sufficiently varied to illustrate the clinical history of aphasia. I shall, therefore now proceed to the consideration of certain abstract points suggested by an analytical study of the cases mentioned in the preceding pages, and for the accomplishment of this task I shall have to avail myself of the assistance of the sister sciences—physiology and comparative anatomy.

(To be continued.)

*The Care and Treatment of the Insane Poor in the United States.** By PLINY EARLE, M.D., Medical Superintendent of the Northampton Lunatic Hospital, U.S.

(Read before the Massachusetts Medical Society, at the Anniversary Meeting in Boston, June 2nd, 1868.)

OF all the subjects legitimately belonging to the specialty of psychiatry, or immediately connected with it, no one has, for the last few years, occupied a more prominent position in the United States, or called forth a larger number of words, oral, written, and printed, than the proper provision for the custody, care, and cure of the insane.

In venturing to contribute another rivulet to this verbal Niagara, I do not profess to be able to say anything new; and my only attempted excuse shall be that I speak to an Association which, whether it be regarded collectively or,

* "American Journal of Insanity," July, 1868.

with some exceptions, individually, does not stand in the bed of the stream of that which has been written, but, dwelling upon the plains of the bordering shores, has caught only the dewy droppings of the mist ascending from the torrent. Let us hope that those dews have been refreshing, and that some eye, more fortunate than others, has detected a rainbow extending its arc of beauty, of hope, and of promise above the somewhat turbulent waters.

In this country, during the quarter of a century next preceding the year 1855, or thereabouts, it appeared to be universally recognized as in practice a principle, and in theory a postulate having all the self evidence and the force of an axiom, that, for the proper treatment of the insane, the first measure is to collect them in hospitals adequately supplied with all the munitions which can contribute to the restoration of mental soundness. This principle was acted upon, and hospitals multiplied apace, until the enterprise received a check by the breaking out of the recent political rebellion. The exigencies of the civil war were such that our people have been, still are, and for a long time must continue to be, heavily burdened by taxes. For this, and perhaps for other reasons, the formerly admitted principle has lost its universal hold upon the faith of the people, and has been questioned in more than one respect.

Various propositions of change have been made, most of them based upon limited practical operations in Europe. Meanwhile, the number of the insane in the United States unprovided with hospital accommodations has largely increased. Hence, at this moment, while there are probably from thirty thousand to thirty-five thousand insane not in the hospitals, the subject of their proper treatment has become not merely a question to be answered, or a proposition to be demonstrated, but rather a problem to be solved.

The suggested modifications of what was thought to be the measurably established plan of hospitals for all may be included under the following heads :—

1. Hospitals for the curable alone.
2. Asylums for the incurable.
3. Colonies, or the Gheelois plan.
4. Central hospitals, each with neighbouring cottages.
5. Family treatment.

The first two propositions above mentioned involve the important question of separation of the insane according as their disease is chronic or recent, or rather, as it is supposed

to be curable or incurable. On the one hand it has been asserted that this separation may be made if not with actual benefit to both classes, at least with no detriment to either; while, on the other, it has been maintained that it is injurious to both. Dante has been quoted and misquoted, interpreted and misinterpreted, translated correctly and translated incorrectly, for the purpose of depicting the horrors of an asylum for incurables. But there is still room for the opinion that the door superposed by that inscription of awful signification and solemn warning,

Lasciate ogni speranza, &c.,

as described in "The Inferno," was not the door of an asylum for the chronic insane. Yet as Dante is dead, and as he died and left no further sign upon the subject, and as Longfellow, in his translation, has no notes or comments thereupon, the correctness of this opinion cannot well be proved.

It has always appeared to me that the greatest objection to receptacles for the incurable, the objection, indeed, paramount not only to all others, but to all arguments in favour of such receptacles, is their liability to degeneration, neglect, and, as perhaps a necessary consequence, the abuse of the inmates. Pecuniary economy is not merely the point of departure, but, as it were, the very germ itself of their origin. If perfect hospitals, fully officered and completely equipped, cost no more than those asylums, no man would think of suggesting the construction of the latter, and the separation of the insane into the two classes mentioned. Based upon the principle of frugal if not parsimonious expenditure, they cannot command the services, for officers, of men of superior qualifications, and, even if they could, the mass of incurable disorder within their walls would present no sufficient stimulus to retain such men. The same influences would have a similar effect upon the boards of trustees or managers, and gradually, in the nature of things, interest, if it ever existed, would flag, and neglect and abuse must almost necessarily follow. The history of such receptacles in Europe generally confirms the truth of this position.

Nevertheless it is not difficult to imagine an asylum for incurables so excellent that the position and condition of its inmates could nowhere be improved. Superintended by a man of special talent, taste and tact, of untiring industry and absolute devotion to his calling, and whose ambition and

benevolence would both be sufficiently satisfied in making the mass of afflicted humanity under his charge as comfortable as circumstances would permit, an establishment of this kind might be made to meet all demanded requirements. But the number of such men whose services could be secured is small, and asylums nearly approximating such perfection must ever be but very rare exceptions. That such have existed, at least in one instance, we have the authority of one of the profoundest thinkers and one of the purest spirits among the German psychologists. I allude to Dr. Zeller, of the hospital at Winnenden, in Wurtemberg, whose remarks upon the asylum directed by Dr. Hayner, at Colditz, justify the assumption of this high position for that institution.

Perhaps it might truly be said of establishments for the insane, whether hospitals or asylums, as Pope says of governments:—

Whate'er is best administered is best.

While it requires no great brilliancy of fancy to conceive an excellent asylum for incurables, it is equally easy to imagine a hospital for curables the condition of the inmates of which could hardly be made worse. At any rate, the condition of the inmates of a well managed asylum is better than it would be in a badly managed hospital. But in the prosecution of a scheme so broadly comprehensive as the proper guardianship and treatment of the insane, it is necessary to act upon general rules and not upon exceptions. In the endeavour to select a method of custody, care, and cure, we must attempt to fix upon one the conditions of which are such as will be the most likely to *insure* effective management.

3. The only existing example of the Colony, or that which has been termed the "free air plan," is that of the commune of Gheel, in Belgium, where many hundreds of mental aliens are placed as boarders, from one to four or five in a family, in the houses of both citizens and peasants. This great receptacle for the insane has existed for centuries, but has not been brought conspicuously into notice until within the last few years. The legend of its foundation by St. Dymphna, a beautiful young woman who, in the seventh century, fled from the presence and the home of an incestuous father, in Ireland, and here devoted her life to the care of the insane, throws an air of romance about this unique commune, the

effect of which must be guarded against in the endeavour fairly to estimate the merits or the demerits of the place as illustrative of a peculiar method of provision for the insane.

I passed two days in Gheel, in 1849, and drew most of my information respecting the method from Dr. Parigot and Mr. Vygen, the *Commissaire de Police*. They kindly conducted me to many houses, both in the village and among the peasant farmers, where insane persons were at board. My impressions of the place were not favourable, even for the class of the insane who by law are alone permitted to be received—the chronic, the incurable, and the quiet, and much less so for other classes—the recently attacked, the curable, and the highly excited. Since that time, the objectionable features have been somewhat modified and diminished, by the introduction of the element of another method in the erection of a central building which, to all intents and purposes, is an asylum or an hospital. Hence, so far as Gheel has improved, the improvement is due not to the method of colonization, or segregation, but to the method of congregation and concentration.

Aside from agriculture, the care of the insane is perhaps the chief financial interest of Gheel, and, like all other pecuniary interests, it is managed with a primary view toward the profits. A system of brokerage has been established in the business, and the men engaged in this, like the “middle men” in all departments of trade and commerce, hold, to a very great extent, the reins of power. The financial interest is thus paramount to the philanthropic interest; and these men will never permit benevolence to interfere with their pecuniary welfare, any more than the shoemakers of Lynn will permit the world to be supplied with shoes—were such a scheme supposable—manufactured gratuitously by a benevolent association.

Of the nearly seventy hospitals, asylums, and other special receptacles, counting Gheel as but *one*, which it has fallen to my lot to visit, there are but two at which I saw insane persons in any way personally restrained by heavy chains. These are at Gheel, and the Timarhané at Constantinople. At the latter a man was chained by the neck to the wall. At the former the chains were in the form of fetters; and, in one instance the large iron rings encircling the ankles had abraded nearly all the skin beneath them, and rested upon a raw and bleeding surface. The man wearing them started up from his grassy bed beneath a hedge, as, upon turning a corner, I

suddenly and unexpectedly came near him, when rambling from the village toward the church of St. Dymphna. Whether the good saint, during her mortal life, approved of this method of security from elopement, neither history nor legendary lore can tell. But, so far as these cases illustrate that which has been denominated the "free air plan," they are open to the comment that the insane can anywhere be permitted to have free air by taking away from them free legs.

At one of the houses, a patient slept in a place which, wherever situated in the building, no New England farmer or mechanic would think fit for the lodging of any of his household, other than the cat or the dog; and, as it was, it was too far out of the way even to be thought of for that purpose. It was a low, three-cornered opening in the attic, formed by the floor, the slanting roof and an adjacent room. Ascending a ladder to reach it, the patient was obliged to crawl into it upon all fours, and there he found his bed of straw. The question naturally arises,—If, in the comparatively small number of houses that I visited, there was *one* such dormitory, how many were there in the whole commune?

I do not doubt that a large proportion of the insane at Gheel are treated kindly; and Dr. Parigot, who knows the place more thoroughly than any other person whose writings upon it are familiar to Americans, attests to the benevolence and the beneficence which are there manifested. But, while admitting and acknowledging this, it cannot reasonably be denied that the primary and principal motive of the persons who receive the insane into their families is the prospect of pecuniary profit. And as the Gheelois are probably like other people, the tendency will be to make the most of their opportunity. Taking this in connection with the fact of the existence of the class of brokers, as above mentioned, it may readily be perceived that the Gheelois method, as it there exists, has too strong a resemblance to the old practice of setting up at auction the board of the town's poor, and selling it to the lowest bidder.

But a very few years before my visit, the chief officer of Gheel—the burgomaster—had been waylaid and killed by an insane man; and, at some former time, the life of a child had been taken by another patient.

These acts of homicidal violence are not mentioned in special condemnation of the plan of colonisation. The history of even the best class of hospitals is but too often checkered

by similar events; and, in them, patients have killed not fellow patients alone, but attendants, and in one instance, in Germany, the superintendent. It is desired merely to show that the method at Gheel does not *prevent* these fatal occurrences.

From what has been said, it is evident that the whole picture of Gheel does not consist in a fanciful foreground of the legend of St. Dymphna. In my view the most important objection to it, as a method, is, that there is greater liability to the abuse of patients than there is in hospitals. The more the insane are segregated and scattered, the less directly can they be subjected to supervisory inspection; while, on the other hand, the number of caretakers is increased, and consequently the probability of abuse correspondingly augmented; for among ten persons anywhere the chances of a cruel master are twice as great as among five persons.

But perhaps the most decisive of all arguments in regard to the method in question, is the fact that, although Gheel, as a colony of the insane, has existed for a time "whereof the memory of man runneth not to the contrary," it has never been copied. Situated at a point almost central between the observing French, the philosophical Germans, the religious and cautious Scotch, and the practical English, it has remained, in effect, almost as unnoticed as if it were unknown, throughout the three-quarters of a century during which each of those peoples has been engaged in establishing, enlarging, and improving the hospital method of treatment. Is it possible that the physicians and the philanthropists of all those countries have been thus long groping in the dark, and that not until so late a period has the sun-light of truth fallen upon them as reflected from the humble church of St. Dymphna?

4. An institution occupying a middle position between the two extremes—a hospital proper and the Gheelois method—has commanded the approbation of a not inconsiderable number of psychologists and humanitarians, and already some establishments conforming, to a greater or less extent, to this idea, are in operation. The cottages disconnected from the main building of the McLean Asylum, and furnishing a suite of rooms for each inmate, illustrate the first step of departure from the hospital proper in the direction of the Colony. But perhaps one of the best illustrations of the kind of institution in question, is the asylum and so called colony of FitzJames, at Clermont, in France. This is a private establishment, owned and conducted by the brothers

Labitte. Upon or connected with, a farm of five hundred acres, are three large buildings, accommodating about twelve hundred patients. One of the buildings is a hospital, or asylum, occupied by those who, for any reason, require restraint. The second is devoted to boarders for whom especial restraint is unnecessary; and the third, to the similar class of paupers. These buildings are furnished each according to its necessities for treatment, and the social position or the pecuniary means of its inmates. There are commodious out-houses, workshops of various kinds, and diversified means and facilities for the amusement, entertainment, recreation, and employment of the patient.

So far as manual labour is concerned, this is, to a great extent, an independent and self-sustaining institution. Domestic industry prevents the necessity of much foreign aid. The extensive farm is cultivated chiefly by the patients, and the grain is ground upon the premises. Regarding the place with a special view to treatment, we find that, in its daily operations, "There is," to use the language of Dr. John E. Tyler, who recently visited it, "a constant interchange going on between the departments. If a person becomes restless, or boisterous, or unmanageable in the colony, he is taken to the asylum. When one in the asylum becomes quiet and can be entrusted with his own liberty, and is capable of labour, he is at once transferred to the colony; and this is felt to be an incentive to self control by the inmates of the asylum."

5. It has been proposed to place the quiet incurable insane in families which, wherever situated, will receive them. This plan has been pursued to some extent in Scotland and in France. It differs from that at Gheel principally in the wider separation of the insane. The greatest objections to it are: first, that the wider separation renders inspection by superior authorities more difficult, and consequently less efficient; and, secondly, that the primary and strongest motive on the part of those who receive the insane will be pecuniary recompense. Doubtless a large part of those who might thus be distributed would fall into hands moved to gentle usage by not unloving hearts. But when we remember the very prevalent distrust, nay, even *fear* of the insane, it does not appear probable that philanthropy alone, or even to any very considerable extent, will induce people to receive them into their households. At all events, progress in that direction must be slow.

Having thus very imperfectly noticed the several proposi-

tions, I proceed briefly to indicate my views in regard to the most appropriate disposition of the afflicted class whose welfare is under consideration. And here it may be premised, that the insane are not like the victims of Procrustes, to be all brought to the requirements or conditions of one place or position. Hence the different classes of them may be cared for in several ways.

1. Some of the quiet incurables are as well provided for in their own homes as they could be elsewhere—and there they can remain.

2. There are not a few, who, having no homes of their own, or who, for some special reason, cannot well be cared for at their homes, but who do not really require the seclusion and the restraints of a hospital. These might well be placed as boarders in country families. Indeed, I think that some who are now in the hospitals might be so placed without danger to other persons, with no detriment to themselves, and, in some instances, with an augmentation of their content.

The propriety of this disposition of them is, of course, dependent upon the assumption of requisite qualifications and conditions of the families with which they may be domiciled, and that all for whom this provision is made shall be under the supervision of men delegated to the duty by the government of the commonwealth.

3. But, after the disposal of the two classes above-mentioned, it will still, as I believe, be found that the great mass of the insane can best be provided for at institutions where they will be so congregated, that the custody, care, and supervision of them will be comparatively easy. There must be hospitals for the curable, if for no others; while, for the incurable, there must be either hospitals, asylums, colonies, or institutions, containing some of the characteristics of the hospital and the colony.

But the method of colonisation, as practised at Gheel, even were it commendable, is probably impossible in this country. The active and enterprising Yankees, with bridle upon steam and a halter upon lightning, yet still whistling and chafing for greater speed, are not the quiet Flemish, plodding through plains of sand in the horse-cart ruts of ages. Whither shall we go, in any of the New England States, to find the township of ten thousand inhabitants who will harbour from a thousand to fifteen hundred insane persons, feed, lodge, clothe, protect, and otherwise care for them, not, indeed, for

fifty cents each, per week, as at Gheel, but even for three dollars and fifty cents, the sum paid by the commonwealth of Massachusetts for this provision for its beneficiaries in the State hospitals? The insane colony, here, I believe to be, for the present, essentially an impracticability, and hence discard it from further notice.

At this point, if you will pardon me for quoting from myself, I desire to introduce an opinion published in 1852, after an examination of German hospitals, and a perusal of much that had been written in the Germanic countries, upon the question of separation of the incurable from the curable insane. That opinion is as follows:—"It appears to me that the true method to be pursued in regard to lunatic asylums, is this: let no institution have more than two hundred patients, and let all receive both curables and incurables, in the natural proportion in which applications are made for the admission of the two classes from the respective districts in which these institutions are located."

The only modification to this plan which I would now make is an extension of the limits of the number of patients to two hundred and fifty; and this is permissible only because of the large proportion of incurables among the existing insane.

So far as relates to character and extent, hospitals of this description are model institutions. The plan appears to me the best of all plans. In no other way can the insane be so well and so effectively treated, their protection secured, their comfort assured, their general welfare promoted, their contentment approximated, and the greatest probability of their restoration attained. The superintendent can obtain a sufficiently thorough knowledge of the case of every patient. Inspection by him may be frequent. All the details of treatment, both medical and moral, may be known to him, and hence the greatest efficiency secured. All the labour of which the patients are capable may be obtained as easily as under any other plan, and a large part of it may be devoted to the care of the curables, the sick, and the excited, thus materially diminishing the necessity for paid employés.

Any desertion of this plan of treating the insane appears to me to be a desertion of the principles of true Christian philanthropy and beneficence. There can be but one excuse for such abandonment, and that is pecuniary expense, the rude touchstone to the severe test of which all schemes of benevolence and of human improvement are brought. Under one

roof, and with one household organization, five hundred persons can be supported at a cheaper rate, *per capita*, than two hundred and fifty persons;—and hence five hundred it must be. This is the first departure from the true method, and this departure has already very generally been made in this country. “It is the first step that costs.” The next step in the same direction naturally follows. The chronic and the incurable insane *can* be maintained at a less expense than is required for the best treatment of curables. Hence the two classes must be separated. So saith cold calculation.

The brief limit of time forbids any further development of the objections to separate establishments for incurables, further than to ask if we may not learn something from the Germans, who, after the subject had been subjected to exhaustive discussion, came to the practical result of constructing nearly all of their largest and most recently erected institutions upon the plan of treatment of both classes under one roof, although the two are in separate departments.

Believing the true colony not only open to serious objections, but as infeasible at present; regarding the institution of distinct asylums for the incurable as detrimental to the interests of the insane, for reasons already given, as well as for the very great doubt that the two classes can be properly cared for more cheaply separate than together; recognising, with sincere regret, the fact that the plan of small hospitals has been practically relinquished, and yielding to that result only because the power which produced it is so strong as to bid defiance to any available resistance, I approve of large hospitals, those which accommodate from three hundred to five hundred patients, as the best practicable plan for the care of all the insane who must be congregated. This plan I would pursue so long as the number of incurables is not very largely disproportionate to that of curables. When, however, the former greatly preponderate in numbers over the latter, rather than widely to separate the two classes I would adopt that style of institution which unites the characteristics of both the hospital and the colony. The principal building should be a hospital commensurate in its perfection with the knowledge of the time. The other buildings for patients should not be far remote; neither should they be so large as those at Clermont. The dimensions, the internal arrangement, and the furniture should be adapted, in each instance, to the condition and the circumstances of the patients for whom the edifice is intended.

The facilities for a transfer of patients from one building to another according to their variations of condition, are of very great importance as a recommendation of this form of institution. This advantage alone should for ever forbid the thought of isolated asylums for the incurable.

If, then, it should become necessary for the commonwealth of Massachusetts to enlarge her provisions for the insane, the object may easily be attained—and the experiment is not unworthy of a trial—by the erection of minor buildings upon the farm of one of the existing State hospitals.

OCCASIONAL NOTES OF THE QUARTER.

The Education, Position, and Pay of Assistant Medical Officers of County Asylums.

In a notice of the reports of the English County Asylums for 1866, published in this Journal for October, 1867, we thus referred to the position and pay of the junior medical officers of these asylums:—

In critically examining these reports there is one little point that we should think cannot fail to strike the unbiassed observer as a decided injustice, if not an absolute wrong. We refer to the low amount of salary offered in many asylums to the assistant medical officers as compared with that enjoyed by the medical superintendents. Whilst such an injustice continues, can it be wondered at that one seldom meets a medical superintendent that he does not complain bitterly of the difficulty of obtaining competent and well conducted assistant medical officers, and that we so frequently hear of things happening in asylums that should not, and in which the junior medical officer is to blame? The emolument being so small, the men who compete for this post in our asylums belong almost invariably to one of two classes. In the one class we find men who have embraced the psychological branch of the profession, meaning to remain in it, and are therefore willing to pass a certain number of years receiving a mere honorarium for their services, in the hopes of eventually gaining promotion to the superior post of medical superintendent. In the other class, and this is by far the most numerous class, we find men who have failed in other

branches of the profession, and the least successful men of the London and Edinburgh schools. The former class, having a settled object to gain, almost invariably make good officers, but, owing to their small number, are not easily to be obtained. Of the latter generally the less said possibly the better. What, however, would be the result if from £150 to £200 a-year was offered? Why, instead of getting the worst specimens from the schools we should get nearly the best—men well versed in the groundwork of their profession, and able and willing to bring their young and ardent energies to bear to help to elucidate the obscurity still clouding the science and practice of psychological medicine. Besides, medical superintendents are often absent from their duties, and it is daily becoming more manifest that they cannot properly perform their work and remain in good bodily and mental health without a long leave of absence, varying from one to two or three months in each year; and during this absence the assistant medical officer is perforce and of right the person in charge of the asylum, and the whole responsibility of this charge rests on his shoulders. Now, is it seemly, or even just, to the many sane and insane persons he has unlimited control over, that they should thus be at the mercy of, to put it mildly, an inferior man? Certainly not, and we trust that the day is not far distant when this evil will be remedied. Already some superintendents have taken the initiative; and we find the salaries of the assistant medical officers in the Somerset, Northampton, Sussex, Abergavenny, and other asylums, slowly creeping up. There is also another point which, if altered, would very materially improve the position of the second medical officer, namely, if the title of deputy medical superintendent, which this officer really is, was universally adopted, instead of the various titles by which he is at present known.

This notice led to the publication in the number for January, 1868, of an able *Memorandum*, by Professor Laycock, on this question, evincing the same intimate knowledge of and interest in this detail of asylum management which he possesses in the wider field of general psychology. It was a generous tribute to the merits and claims of those who have followed his course of medical psychology which Professor Laycock paid in this *Memorandum*.

The question, as it relates to the successful working of our large asylums, of the *Education, Position, and Pay of the Junior Medical Officers* is second only in importance to that of the chief Superintendent.

It can hardly be argued that £100 a-year, with commons and lodgings, is a sufficient remuneration for the performance of the important duties assigned to the assistant medical officer by the rules of the county asylums. The instant the

medical superintendent is off duty, the whole charge of the establishment devolves on the junior medical officer, whether this be for a chance afternoon or during a more prolonged leave of absence. It is therefore absurd to compare such an officer with the resident surgeon of a general hospital. The latter has only to carry out the medical treatment of the visiting physician, and his office entails no responsibility whatever for the general control of the hospital, which is administered by the committee of management and by the house steward or matron. The peculiar organization of an asylum for the insane entails very different duties on the medical officers. They are held responsible for the physical and mental condition of every patient, and for the detail work of every department of the asylum. They have, in addition, the extensive correspondence of the house with the guardians and relations of patients to conduct, and an amount of responsibility in infinite small matters is laid on them, the burthen of which only those who have filled the office can rightly measure.

We desire in this "Occasional Note," to say a few words on the education, position, and pay of the Assistant Medical Officers of our Public Asylums:—

1. *Education.*—Evidence of special instruction in Medical Psychology ought to be required of every candidate for the office of Assistant Medical Officer. In the great northern school of medicine (still unrivalled in Europe), such systematic instruction is afforded by Professor Laycock and also by Dr. Skae, at the Morningside Asylum. In London, University College, St. Mary's and St. George's Hospital, offer to students a course of lectures on mental disease. At Bethlehem Hospital two clinical clerks are admitted to reside in the Asylum for a period of six months, which arrangement affords better opportunities for the study under the resident physician of the subject than systematic courses of lectures can offer.

Lectures are all very well in their way, but without the *clinique* we much doubt their efficacy. Of what avail would be a course of lectures on the practice of physic or surgery, without the bedside practice of the hospital to demonstrate on the living subject what the lecturer has inculcated theoretically in the lecture room? By a parity of reasoning we doubt the utility of the institution of courses of lectures on Psychological Medicine in our London Hospitals, if the students are unable from day to day to watch the courses of the various forms of mental disease as they are seen in the

wards of our public asylums. The plan adopted at Bethlehem is, therefore, we think, undoubtedly the correct one. It is, we believe, also pursued at the Wakefield Asylum, and might, with advantage, be extended to other large asylums. The students would thus gain an insight into mental disease, and learn the internal economy of asylum management in a way impossible otherwise to be commanded; and would thoroughly qualify themselves to fill the posts—first of assistant, and eventually of senior medical officers; whilst the Asylum medical authorities would gain assistants—young, and therefore energetic, in their work—relief from many of the least important, but not therefore less irksome of their duties, and pleasant companionship in that most (socially) isolated of all places, an ordinary County Lunatic Asylum.

2. *Position*.—Of the position of an Assistant Medical Officer of a Lunatic Asylum there should be no doubt. He should, of course, be subordinate to and under the control of the Medical Superintendent in every single particular, but to him alone. In the Medical Superintendent's absence he should be himself supreme, and the words of the rules affecting his office should be so clearly stated as to leave no doubt on this point. This should be universally recognised; or it makes the position of an Assistant Medical Officer during the absence of his chief a most difficult and arduous one, and causes it for the time to be surrounded with far more troubles and annoyances than that of the Medical Superintendent. The position and authority of the Medical Superintendent is secure and omnipotent, and recognised as such by all the officials; but if the rules of the Assistant Medical Officer are not clear, in the absence of his chief, he has a most wearisome task to perform. The eye of the superintendent being off them, the sub-officers are ready and willing to take every opportunity of endeavouring to increase their own power, and being as a rule persons of but limited educational ability, fail to perceive the annoyances and even the dangers to all of anything like an *imperium in imperio*. Consequently, in the occasional absence of the Superintendent, the Assistant Medical Officer is placed in the anomalous position of being in apparent command, with all the responsibility of such a command, and yet subject at every turn to numberless slight but vexatious interferences and opposition, and to the indignity of never knowing whether his orders will be carried out, or cavilled at, and perhaps objected to. Therefore, it

should be distinctly stated in the rules, as it is in some asylums, that *In the temporary absence of the Medical Superintendent (on leave or otherwise) he* (the Assistant Medical Officer) *shall have entire charge of the Asylum, and shall conduct the duties of the several departments in conformity with the regulations and orders of the Committee of Visitors.*

And, furthermore, to define his position and render it thoroughly clear to the dullest understanding, his title should be Deputy Medical Superintendent, not Assistant Medical Officer.

3. *The Pay.*—There can be no doubt that at present this is shamefully inadequate. Boards of Visitors consisting of county gentlemen still follow the traditional routine of advertising for fully qualified medical men to fill the post, and incur the responsibility already described, for the mere honorarium of from £80 to £100 per annum. Only the other day the post of assistant to a large County Asylum in the West of England was advertised; salary, £100 a year; and at the end of the advertisement were the words “700 patients.” Why, even the Poor-Law Board would hesitate to offer such a remuneration. For it must be remembered that the rules of this asylum, probably, require that each of these patients shall be seen twice a day, which makes a nice little sum of 1400 to be seen daily, or 9800 weekly, or 509,600 yearly. What would even the hardest worked general practitioner say to this? At the same time it must be allowed that the tendency of all salaries, including those of the Assistant Medical Officer, is to rise. Some twenty years ago, £40 or £50 a year was the pay of an assistant. Dr. Bucknill was, we believe, the first to recognise the injustice of this state of things, by obtaining £100 a year for his assistant. Most asylums followed this example, but for the most part there stopped. Improvement has, however, followed the previous notice of this question in this journal in a few cases. Thus, at the Essex Asylum, * the salary has been raised from £100 to £200, with board and lodgings; at the Sussex Asylum from £120 to £150, with similar allowances; whilst the governors of

* Writing in April last, Dr. Campbell, the Medical Superintendent of the Essex Asylum, Brentwood, says :—“ I have lately agitated the question of the very inadequate amount of money paid to the Assistant Medical Officers in our County Asylums, who so often have to act as Medical Superintendents. The committee here at once entered into my views, and have raised my Assistant from £100 to £200 a year,—an example which I hope will be followed in other similar cases.”

the Idiot Asylum at Earlswood have advertised this quarter for an Assistant Medical Officer, at a salary of £150, with board and lodgings. At the Middlesex Asylum of Hanwell and Colney Hatch, the Assistant Medical Officers have for several years past been paid a salary of £150 to £175 each, with board and lodgings. And how easily this advance may be carried out, and at what a little cost to any one. What a mere bagatelle is the addition of £50 or so to the rate, and of how little importance compared with the paramount necessity of obtaining *and keeping* a really efficient officer. This is not the kind of extravagance that causes the rate to be high—the addition of an ounce of cheese to the diet of each patient daily, or the slightest rise in the price of flour, would be much more appreciable in the expenditure at the end of the year.

Still further progress will, we trust and believe, take place in this question, until it shall be recognised that the Assistant Medical Officer is the Deputy Superintendent, and that his salary, in all but the smallest Asylum, shall not be less than £200 a-year, with board and lodging. Then we may indulge in the hope that really talented and well-educated young men will consider it worth their while to join the ranks of Medical Psychology, and whilst waiting for further promotion, endeavour by careful observation and experiment to elucidate some of the many mysteries surrounding the approach to an accurate knowledge of the pathology and treatment of mental disease; whilst, their present and future interests being at stake, we should have ample guarantee that the duties of their office would be zealously and efficiently performed; that their conduct would be that of gentlemen; and in a word, both their hearts and interests being in their work, and their talents and education good, the *morale* of the whole body would become infinitely improved, and there would be an end of the unpleasantnesses that have so frequently occurred.

The Poor Law Amendment Act, 1868. (31st and 32nd Vict., cap. 122).

The following important sections in the *Poor Law Amendment Act, 1868*, relate to the care and treatment of the insane poor in Workhouses, and to the transfer of the idiot poor to Idiot Asylums, maintained at the charge of the county rate or by public subscriptions:—

I.
Guardians
may pay the
cost of Idiots
sent to Asyl-
ums for Idi-
ots.

§ 13. *The Guardians of any Union or parish may, with the consent of the Poor Law Board, send an idiot pauper to an Asylum or establishment for the reception and relief of Idiots, maintained at the charge of the County Rate, or by public subscription, and they may, with the like consent, send any Idiotic, Imbecile, or Insane Pauper who may lawfully be detained in a workhouse, to the workhouse of any other union or parish, with the consent of the guardians of such last mentioned union or parish, and pay the cost of the maintenance, clothing, and lodging of such pauper in the Asylum, Establishment, or Workhouse, as well as the cost of his conveyance thereto, or his removal therefrom, and the expenses of his burial when necessary.*

The power given by this section to extend the system of special asylums for pauper idiots enables the guardians to place the idiot poor detained in workhouses in idiot asylums, either maintained by public subscription or at the charge of the county rate. This arrangement was thus suggested by Dr. Lockhart Robertson in his address to the Medico-Psychological Association in 1867:—

Connected with this division of my subject is the question of the care and treatment of the idiot children of the poor. Of the 40,000 pauper lunatics and idiots in England and Wales, 10,000 are idiots from birth. These idiots are maintained partly at home, partly in the workhouse, and the more hopeless and troublesome are sent to the county asylum. As every experienced superintendent will admit, nothing can be more detrimental to their chance of improvement than to place these congenital idiots in the wards of a lunatic asylum: still more unsuitable are those of the workhouse. In the private dwellings of the poor the difficulties are even greater. The treatment of lunatics and of idiots is distinct in principle and in practice, and they cannot be dealt with under one system. The remedy lies in the establishment in the several districts of England of idiot asylums. Probably one for each of the eleven poor-law districts would suffice. By extending the provisions of the lunacy acts to the erection of these idiot asylums, and to the cost of maintenance there, no new machinery would be requisite. It needs no words of mine to urge the claims of the idiot—*of those who cannot plead for themselves*—to a share of the gifts of fortune and of healing which have been so richly poured on this generation. We have already at Earlswood a model idiot asylum, and marvellous proof what wise treatment can effect for the amelioration of this sad affliction. An idiot asylum with 400 beds in each of the eleven poor law districts, and which might be built at £80 a bed,

would amply meet this pressing want, and so far lessen the percentage of pauper lunatics and idiots requiring care and treatment in the county asylum, in the workhouse, and at home.

The efforts now making to establish idiot asylums for the poor in Lancashire, Northamptonshire, and Warwickshire, in the former two instances by public subscription, in the latter at the charge of the county rate, will be largely strengthened by the sanction given by this important section to the transfer of idiots from the workhouses to idiot asylums by either of these means. It remains for the southern counties to take steps similarly to establish an idiot asylum for the treatment of the idiot poor of the counties of Surrey, Kent, Sussex, and Hants.

II. § 43. *The Guardians of any Union or Parish may, with the consent of the Poor Law Board, and the Commissioners in Lunacy, and subject to such Regulations as they shall respectively prescribe, receive into the Workhouse any chronic Lunatics, not being dangerous, who may have been removed to a Lunatic Asylum, and selected by the Superintendent of the Asylum, and certified by him to be fit and proper so to be removed, upon such terms as may be agreed upon between the said Guardians and the Committee of Visitors of any such Asylum, and thereupon every such Lunatic, so long as he shall remain in such Workhouse, shall continue a Patient on the Books of the Asylum, for, and in respect of, all the Provisions in the Lunacy Acts, so far as they relate to Lunatics removed to Asylums.*

Certain Lunatics may be received in Workhouses from County Asylums.

This last section, relative to the care of the insane poor in workhouses, is an amplification of the 8th section of the *Lunacy Acts Amendment Act*, 1862, about which so much discussion has arisen, and which was found to be inoperative in practice. It contains the important proviso, omitted in the Act of 1862, that every lunatic sent under its provisions to the lunatic ward of a workhouse "shall continue a patient on the books of the asylum for, and in respect of, all the provisions in the Lunacy Acts, so far as they relate to lunatics removed to asylums." The insane poor, thus placed in workhouses, would remain patients of the county asylum, and be subject to the supervision of the medical superintendent. It is gratifying to observe how the provisions of this 43rd section of the *Poor Law Amendment Act*, 1868, also accord with the suggestions made by the President of the Medico-Psychological Association in his Address for 1867:—

I would say, speaking generally, that 25 per cent. of the pauper lunatics and idiots chargeable may, with great relief to the wards of the county asylum, and with satisfaction to themselves and their friends, be kept under proper restrictions in the workhouse. The mixing there with persons of sound mind is a comfort much appreciated by this class of patients, as also the greater freedom, the facility of visiting old friends and associations, and such like. In country districts, the workhouses would thus prevent the constant tendency to the accumulation in the wards of the county asylums of harmless and incurable lunatics. A similar relief was contemplated in rather a different way by the 8th section of the Lunacy Acts Amendment Act, 1862; but the wording of the clause is so obscure that the Attorney and Solicitor-General advised in May of this year 'that further legislation is needed, in order to define more clearly the true position of chronic lunatics removed to workhouses, and of the visitors, guardians, and others with respect to their lunatics.'

When by such high authority further legislation on this point is stated to be necessary, I may perhaps be permitted to say, that in order to place the arrangements for the care and treatment of the insane poor in workhouses on a satisfactory and permanent basis, it is above all things necessary that one system and authority should regulate the same. Parliament has already in theory confided the charge of the insane poor to the justices of the peace, under the supervision of the Commissioners in Lunacy. I would urge that this theory be put in practice. To this end I would suggest:—

1. That it be illegal to detain any lunatic or idiot in a workhouse without the same medical certificate and a justices' order as is requisite for admission into the county asylum, and that copies should be transmitted by the clerk of the union to the Commissioners in Lunacy, and to the visitors of the county asylum.

2. That the visitors should depute the medical superintendent, or one of the medical officers of the county asylum, to visit the workhouses in the county at least once a year,* to arrange for the interchange of suitable cases, and to report to them on the condition and treatment of the insane inmates; such report to be submitted to the Sessions, with the document relating to the management of the county asylum.

3. That the case books and statutory records of the workhouses, so far as relates to the care and treatment of the insane poor, be assimilated to those in use in the county asylums.

Similar provisions were long ago recommended by the Earl of Shaftesbury in the speech (6th June, 1845) in which he introduced the Lunacy Act, 1845, into the House of Commons:—

* This would occupy about a fortnight off and on in the year, and would form a healthful change of work, and be alike beneficial to the medical superintendent and to the inmates of the unions whom he would visit. Of course this arrangement implies the presence at the county asylum of one or more assistant medical officers—a point much insisted on by the Commissioners.

‘In erecting,’ he said, ‘new asylums, and providing further accommodation where it is required, regard should be had to the proportion of curable and chronic lunatics—I purposely avoid the use of the term incurable. Separate buildings, I propose, should be provided for chronic lunatics at a less cost, and parts of the workhouses, with the consent of the Poor Law Commissioners, may be adapted, in which case they are to be separated from the other part of the building, and to be deemed county asylums.’

It may be anticipated that these important clauses will afford the same relief to the overcrowded wards of the county asylums as the *Metropolitan Poor Act*, 1867, is about to do for the metropolitan asylums. No less than 3,000 chronic lunatics will be accommodated in the two asylums now building by the Metropolitan Board. In the counties many of the workhouses are fortunately half empty, and a little skill and arrangement would enable the guardians, under the provisions of this Act, to provide wards for the relief of the county asylums to the extent of about 25 per cent. of their inmates, and without any material sacrifice of the welfare of these patients, and with the manifest advantage of relieving the county asylums of the crowd of chronic and incurable lunatics that, year by year, now accumulate there.

Earth Closets.

The value of Mr. Moule’s invention in the application of the disinfecting power of dried earth to domestic uses can hardly be over-estimated. Let any one, who has an old-fashioned privy and cesspool in his garden, try the simple and inexpensive experiment of cleaning out and bricking up his cesspool, and of substituting two zinc pails—one under the seat for use and the other filled with earth dried in the sun, or better in an oven, till it has become a fine impalpable powder; and let him direct those, who may then use the privy, to sprinkle on each occasion, with a shovel, a little of the dried earth over the excreta, and he will find the nasty smelling privy converted by this simple expedient into a perfectly sweet and wholesome chamber. Every few days the pail may be emptied of its innocuous contents—rich in fertilising power—on to the nearest flower border. If it be desired to try the same experiment in the sick room, the portable earth closets sold by the patentees are most efficient and complete.

In public institutions, in prisons, workhouses, hospitals and asylums the system admits of the most ready application. Where water is scarce the earth closets are of special value. They have recently been adopted with great success at the criminal asylum at Broadmoor, and it is proposed to employ earth closets only at the new Catholic lunatic asylum shortly to be opened at Purchase Manor, near Haywards Heath.

Dr. Hawksley's recent pamphlet* is exhaustive of the question of the relations of organic matter to life in health and disease. He thus describes the method in which the earth closet may be used :—

The earth-closet, the invaluable and ingenious invention of the Rev. H. Moule, effects this object in the most simple and convenient way. On using the handle a shower of earth supplies the place of water; and the arrangements for the removal of the product may be made either by the adoption of a zinc-lined iron pail, or of a tank, or of a vault, into which all the earth-closets in a house might pour their products. Which of these modes shall be adopted is simply a question of expediency; my own belief is, that for a crowded town, where there is little convenience for the storage and drying of such materials, a frequent removal would be desirable.

Should anyone object to earth-closets for the poor, on the ground of their expense, or of any supposed difficulty in keeping them in order, let me say, that as to expense they are much less expensive than water-closets in the first instance; they are so simple in their construction that to get out of order must be a very rare and exceptional thing; and that, as to any supposed difficulty in using them, and making their use successful, it is again much less than with the water-closet. To obviate any question as to neglect in pulling the handle, and so failure in supplying the earth, *the closets are made self-acting*, so as to require no attention.

But again, if the matter of expense were more pressing, it is quite possible to employ the dry earth system without the earth-closet; and the method possesses some advantages. For this purpose the cheapest and readiest form would be the adoption of a zinc sheet iron tank, into which one or many closets would discharge their recepta. If more than one, there would be a common shaft through which the upper closets would communicate with the tank. With such an arrangement the earth closet would be unnecessary, and only an ordinary seat would be required.

* "Matter,—its Ministry to Life in Health and Disease; and Earth.—as the Natural Link between Organic and Inorganic Matter," by Thomas Hawksley, M.D. Lond., M.R.C.P., Physician to the Margaret Street Infirmary for Consumption and Chest Diseases. London: John Churchill and Sons, New Burlington Street. (Pamphlet.)

With regard to the agricultural value of the earth when once used in the earth-closet, Dr. Hawksley gives the following analysis, by Mr. Evans, analytical chemist, Leadenhall-street :—

Since writing the above, Mr. Evans has sent me the analysis of another specimen of the product on which the earth was once used only, taken from a vault and dried, the constitution of which he thus reports .—

Organic matter	.	.	.	.	22.00	per cent.
Soluble Phosphate of Lime	.	.	.	.	1.10	"
Alkaline Salts	.	.	.	.	4.10	"
Nitrogen	.	.	.	.	0.65	"
Potash	.	.	.	.	1.10	"
Alumina, Sand, &c..	.	.	.	.	70.75	"
					<hr/>	
					100.00	

And he estimates the above at 30s. per ton, with a note that the earth in this sample was in excess, and that ordinarily the value would be from 40s. to 60s. per ton. This second analysis considerably strengthens the argument for the value of the product.

A Derby Town Councillor on the Treatment of the Insane.

Philanthropists have often a hard time of it in defending the cause of progress against the local orators of town councils and boards of guardians. Indeed, they sometimes realise, with a weary sense of thankfulness, the promised Conservative reaction, when they regard the conduct of some of those whom accident has hitherto placed in municipal or vestry authority. To these sorrowful illustrations the Derby Town Council has furnished a prominent example. At their last quarterly meeting the subject of the proposed Borough Lunatic Asylum was discussed. Mr. Councillor Pool made the following remarks :—

Mr. Pool asked how it was there were more lunatics now than formerly. He was strongly inclined to think it was owing to the good treatment they received. It was his opinion that the best plan of treatment would be to treat them with a horserhip! He was not speaking ironically at all, but meant what he said; a good horserhip would be the best thing. Under the present system of treatment they were always likely to have a good many lunatics.

His worship, the mayor, listened in silence, and only one member of the corporation thus entered his protest:—

Mr. Haslam was very sorry to hear Mr. Pool speak in that way about persons suffering one of the most awful calamities that human nature was liable to—(hear, hear)—and which of all others was most to be pitied, and was most difficult to cure. He would support Mr. Madeley's motion, believing that kindness and a thoroughly contrary treatment to that of the horsewhip was of all others the most likely means to effect the cure of those unfortunate persons whose very great misfortune it was to be deprived of the use of their reason. (Hear, hear.) To talk of going back to the days of the horsewhip to drive poor lunatics into reason! It was monstrous in the extreme! He was indeed very sorry to hear such an opinion fall from the lips of Mr. Pool. (Hear, hear.)

When it is remembered that Mr. Pool will probably, in rotation, be a visitor of the Derby Borough Asylum, even that council, of which he is so distinguished an ornament, may understand why it is that physicians, in seeking the charge of such establishments, give so decided a preference to the County Asylums under the rule of the great Tory magnates.

In all sober earnest, we ask how long the cause of progress is to be disgraced by such a speech—unreproved by the Chair—from one of those orators who now sit in the Derby and other Common Council Rooms?

PART II.—REVIEWS.

Addresses at the Annual Meeting of the British Medical Association, held at Oxford, August, 1868.

On the whole, we cannot but think it a good thing for two or three of the leading members of our profession to be called upon to deliver addresses at the annual meetings of the British Medical Association. The least merit of the practice is, that it constrains those who have obtained a high position in the esteem of their brethren and the public to give, wittingly or unwittingly, the faithful measures of themselves. On such an occasion, and before such an audience, it is impossible for a man to discourse for an hour on the department of medical science in which he has won distinction, without revealing to those who listen to him the qualities which have raised him to eminence. But the best advantage of the custom is the instruction gained therefrom both by those who speak and those who listen. To rise from the special pursuit in which his energies are habitually occupied, to view it in its relations to other fields of labour, and to present to his hearers a well conceived and more or less brilliantly executed picture of the relations of the different departments of medical science and practice, and of the position of medicine as a science among the sciences—this cannot fail to be as beneficial to him who undertakes the work as it is instructive and useful to those for whose benefit he undertakes it. Year by year the accumulated results of progress in the different paths of scientific enquiry render such a review most necessary.

We purpose now to give a few extracts from the addresses delivered at Oxford in August last, in order to exhibit the spirit and character of them. And first may be quoted some sincere and sensible remarks of Dr. Stokes, the retiring President. Speaking of the good work which, by virtue of

its large dimensions and complete organisation, the Association may be expected to accomplish in the future, he says :—

But it is plain, that its durability and usefulness will depend on its being made the instrument for the public good, rather than the machinery to advance the immediate worldly interests of the profession. And every one of us must lay it to heart that a great issue rests within his hands. The man among us who by his unselfish labour adds one useful fact to the storehouse of medical knowledge, does more to advance its material interests than if he had spent a life in the pursuit of medical politics. Far be it from me to say that there are not great wrongs to be redressed. It is impossible, in any country, that evils of custom and of administration, private wrong, corporate shortcomings, hard dealings, unfair competition, and scanty remuneration for public and private services, should not occur. But these evils being admitted, how are they to be lessened, if not removed? Is it by public agitation and remonstrance, addressed to deafened or unwilling ears? Is it by the demand for class-legislation? or is it by the efforts of one and all to place medicine in the hierarchy of the sciences—in the vanguard of human progress; eliminating every influence that can lower it, every day more and more developing the unprofessional principle, while we foster all things that relate to its moral, literary, and scientific character? When this becomes our rule of action, then begins the real reform of all those things at which we fret and chafe. Then will medicine have its due weight in the councils of the country. There is no royal road to this consummation. On the one hand, the liberal education of the public must advance, and the introduction of the physical sciences in the arts courses of the Universities has given the death blow to empiricism; and, on the other hand, that of ourselves must extend its foundations, and trust far less to the special than to the general training of the mind. When medicine is in a position to command respect, be sure that its reward will be proportionately increased, and its status elevated. In the history of the human race, three objects of man's solicitude may be indicated: first, his future state; next, his worldly interests; and lastly, his health. And so the professions which deal with these considerations have been relatively placed: first, that of divinity; next, that of law or government; and, as man loves gold more than life, the last is medicine. But, with the progress of society, a juster balance will obtain, conditionally that we work in the right direction, and make ourselves worthy to take in its government.

These are surely wise words, and they certainly were not unmeet for the occasion.

Dr. Acland, the President for the year, devoted the first part of his address to a review of the relation of modern

medicine to modern science, pointing out how far medicine, though making much promising progress towards exact methods of inquiry, was yet behind the exact sciences. At the same time he took pains to exhibit the special position which medicine as an art occupies, setting forth the necessity and use of the empirical method, or the method which attempts to cure by rules derived from tradition, probability, and tentative experiment. In the second part of the address he occupied himself with the relations of modern medicine to humanity ; in other words, its relations to the wants of man in the complex state of modern society :—

There is one other relation of modern medicine which it would be improper to pass by, although it is one which an over-prudent man would instinctively avoid—its relation to spiritual beliefs. The reason why an over-prudent man would avoid all allusion to such beliefs is, that he dreads to entangle himself in the maze of angry controversy which not only surrounds, but almost fills, the ecclesiastical world—controversy, not between creeds permanently opposed, as the creeds of Buddhism, of Islam, and of Christendom, but feuds in the bosom of each separate religious system. The reason why we cannot, if we would, avoid considering our own relation to spiritual beliefs, lies in the two fundamental facts, that we are ourselves men like other men, and that we stand in a closer and more real relation to man, as man, than does any other class of the commonwealth. It has indeed been said, ‘*Ubi tres medici, ibi duo Athei.*’ The recent attacks by the Cardinals in the French Senate on the Faculty of Medicine show that the charge conveyed in this aphorism is not forgotten in France. Signs of the same notion are not wanting in this country. What is the fact? The fact seems to be, that the members of the medical profession are in their lives not less religious than the average of the society in which they live. As a body, they are calm, earnest men, who mingle little, perhaps too little, in the questions of the day, and seldom with violence. Religious enthusiasm is rare with them; fanaticism is generally absent; and, on the whole, it may be said that, as a profession, they stand aloof from religious discussion. Self-interest operates in some degree; usage operates to some extent; but there is a deeper reason for their standing aloof, which religious teachers would do well to lay to heart. There are none who know so much of the reality of man’s nature, its phenomena, its conditions, its pain, its privileges. To the physician, the bodily nature is bared in its beauty and in its hideousness, in its formation and growth, and in its decay and dissolution. Man’s relation to other living forms, his likeness or his unlikeness to irresponsible, unreasoning, or half-reasoning brutes, are vital questions to those whose minds are filled with ideas of anatomical homologies, of the relations of functions to organs, of the

laws of hereditary transmission, and of the evolution of mental attributes as well as of corporeal organisation in the animal series. The physician sees in the body of man the material structure by which alone the known operations of the mind of man are possible in this world, the organs by which alone he can work his earthly work, whether it be the work which he shares in common with the beasts of the field, or the work through which he can enter into conscious relation to his unapproachable Creator: the fame by which, while bound down in an earthly charnel-house, he lifts his eyes and strains his heart with yearning ineffable towards a higher nature, and obeys the upward-tending impulses of affections strong unto death, affections so pure and so divine as to lose in the love of others even the consciousness of self. All this, and much more, our profession sees as phenomena. It knows that 'the child is the father of the man;' that 'the sins of the fathers are visited upon the children to the third and fourth generation;' that man, though in one sense 'lower than the beasts which perish,' is yet 'the paragon of animals, in apprehension how like a god, in action how like an angel.' These, and all the contrasts which poets and preachers paint, are present to us under all phases, in every circumstance of race and creed, of temptation caused either by want or by luxury and power, or temperament engendered by any of these conditions, modifying, as you all know, both disease and the remedies it requires. I forbear from enlarging on this difficult and perilous topic here; but I shall have to recur to it briefly under the last head of my address. It need now only be said, that the connexion which medical men must have with the future culture of the country is becoming more and more intimate.

At a later part of his address, Dr. Acland makes the following observations:—

"It would be trespassing too much on your good nature to ask you to listen to the proofs that an acquaintance with the mental constitution of man, of those ways of ennobling its impulses, and of that mixed knowledge and discipline which are called religion, is more especially necessary for our profession. I therefore assume that you generally consider every scheme of preliminary education faulty which does not admit this, and will only state briefly what present circumstances seem to require of caution under that admission. Granted that, for the intellectual training of a medical man, religious discipline and psychological knowledge are required, how are they to be imparted? and of what kind should they be? If those who have investigated the subject were agreed as to the nature and origin of human families; if the unity of our race were conceded; if there were no variations in character dependent on family and inheritance; if there were no questions as to the future state, nor disputes concerning our relation to the Infinite; if no questions had arisen within the

pale of Christendom as to the scheme of redemption, nor outside that pale as to the evidence of that Christian faith—then indeed the student preparing for medicine would find some definite course of mental philosophy and religious instruction in all colleges from San Francisco to Calcutta. Till that day of united conviction arrive, we must be content to take some general position that all can accept. Nor is this difficult. All will agree that we must, first, study the phenomena of human nature as now known to us, without regard to the origin of man; and, secondly, study the principles of laws which ought to regulate the will and affections of man for the good of himself and society—in other words, the principles of universal morality. Nothing less than this is necessary for the youth who are to follow our profession; nothing more can we now enforce. We have in England to educate for the empire—that is to say, for persons of every creed. Our education as physicians cannot in this respect be limited by any one form of religious belief; and however much I may deplore, in the pathetic words of Faraday, ‘That people will go astray when they have this blessed book to guide them,’ we cannot deny that, under existing circumstances, the results of mental science, deduced from every source, must be to some extent made part of the higher education of our profession, without any regard to the bearing they may be supposed to have upon commonly accepted religious opinion.

The reason is a practical one and plain. It is our business to deal with the characters of men, to observe the action and reaction respectively of body and mind, to trace out how character is affected by physical alterations in the brain; how this may be modified by physical means, by discipline, by food, by the physiological agents called drugs. And our youth must and will follow the researches which are made in these several directions. It will be useless to denounce the inquiries which tend to explain the relations between thought and material organisation. That bundle (as it were) of qualities, good and evil, which we call mind, does, as far as we know, require for its manifestation the continuity and integrity of a complex organisation. That organisation varies with the qualities which are exhibited. The mental organization of animals inferior to man is as various as their bodily structure. In truth, we have as good right to call the bodily organisation the material part made for the action of mind, as the mind the consequence of the bodily organisation. The distinctive properties of the mind of man furnish the most notable illustration of the origin of force. The absence of any one of these powers, and especially of the will, shows the greatness of their presence. There are phenomena, such as those of aphasia, such as the innumerable facts of pathological analysis observed in the insane, such as the remarkable results obtained by the researches of Claude Bernard, which become part of the common stock of knowledge, and must find their place in any theory of humanity which is to claim an acknowledgment from the intelligent

physiologist of the future. This deep, this profoundly interesting subject might be pursued at great length; it is commended to your serious attention with these words of Bacon:—‘All depends on keeping the eye steadily fixed upon the facts of nature, and so seeing their images simply as they are. For God forbid that we should give out a dream of our own imagination for a pattern of the world. Rather may He graciously grant us a true vision of the footsteps of the Creator imprinted on His creatures.’

It was, doubtless, well to touch these important questions with a prudent vagueness, and merely to indicate the probability of future change. Everyone will appreciate the candid and liberal spirit in which Dr. Acland approaches problems encompassed with difficulties and danger, and which could hardly fail to be doubly embarrassing to one who, as an Oxford professor, was constrained by the spirit of the past, and, as the president of a scientific association, was bound to give due consideration to the acquisitions of modern science. Nevertheless, though Dr. Acland might properly avoid on such an occasion bringing irreconcilable methods and opinions into distinct antagonism, they must inevitably soon come into mortal conflict, and the sooner the issues to be decided are clearly defined, and the struggle begins, the better for the cause of truth, and of those vast human interests which depend on the sincere recognition of truth. In the good work which he has done at Oxford, by supporting the introduction of the teaching of physical science into the curriculum of the University, Dr. Acland has justly earned the gratitude of those who have at heart the interests of science and the future well-being of the University.

Dr. Gull's address in medicine, though containing numerous valuable suggestions, was somewhat sketchy, and at the same time desultory. Speaking of the value, in diagnosis, of a knowledge of the probable in disease, founded on a varied experience and a large knowledge of pathology, he makes the following remarks concerning brain diseases:—

In brain diseases, this method of interpretation comes largely into play; and the neglect of it has much to do with the obscurity in which, at the bedside, these diseases are still involved. It is often impossible to form any opinion whatever of the malady under which a patient with brain-disease may be labouring, from an inquiry however acute, and however complete, into the mere statical facts, as they at the moment present themselves. The attempt to do so is perhaps more likely to lead to error than to truth; a fact which, if I be right

in the statement of it, shows of how little value mere symptoms are in the diagnosis of such diseases.

Abercrombie felt this to its full extent, and one of the objects of his treatises on cerebral diseases was to make it clear, and to warn us against future attempts in that direction. A perusal of his writings will leave upon the mind the impression that the most diverse affections of the brain may, at the bedside, present the same symptoms; that in the most extensive lesions there may be none at all; or that the whole catalogue of symptoms may appear without any lesion. But the feeling of despair which such a perusal formerly induced, is now in great part dissipated by the success with which the inquiry can be made in the direction pointed out. Admitting that we shall never diagnosticate cerebral lesions by their symptoms; partly because different lesions may produce the same symptoms if the seat be the same; partly, because there appear to be surplusage portions of brain-tissue, as in the hemispheres, where lesions cannot make their presence known; and partly because in that monster disturbance epilepsy, we may have a variety of states simulating organic lesion, we betake ourselves again, with renewed energy, to the study of morbid anatomy and pathology, which first caused the confusion by disturbing our ignorance, feeling assured they will at last afford us a full clue to the difficulty. To a large extent they have already afforded this clue. To begin with the last fallacy I have named, I may remark that we are better acquainted than formerly with the various forms of the epileptic state. A better pathology has prepared us to recognise in this condition a great variety of effects. Todd drew attraction to epileptic hemiplegia; and in the same subjects there occurs also a remarkable form of coma, which has often led to the supposition of effused blood, or tumour, or abscess—suppositions which have been falsified by the recovery of the patient. Whilst our notion of epilepsy included nothing more than a convulsive state with unconsciousness, numerous errors in diagnosis must have occurred from this source alone. It now represents to us a condition of nerve-force, in which may occur not only the common phenomena of epilepsy, but coma without convulsion; paralysis following convulsion; sudden and transient mania, or an approach to it; as well as, according to Trousseau, some strange forms of neuralgia. A knowledge, therefore, that a patient is liable to epilepsy, or comes of a family in which such a state has directly or indirectly occurred, must make us pause in our diagnosis, and thus save us from a precipitate or erroneous conclusion. The proneness of the aged to epilepsy is a fact probably not sufficiently borne in mind in the diagnosis of these cerebral disorders. As to the second fallacy, when disease is situated in what may perhaps be called, without misuse of the term, the surplusage portion of the cerebrum or cerebellum, we are often led to suspect its presence, and as often correctly to infer its nature (and avoid the third fallacy), from a knowledge of the fact of

surplusage, and of what is probable under collateral circumstances, though the symptoms of organic disease may be apparently of an insignificant kind. For instance, headache with occasional bilious vomiting in a young and healthy adult—tumour; (?) the same symptoms, with chronic suppuration about the ear, or in some distant part—abscess; (?) nearly the same symptoms, with syphilitic cachexia—syphilitic affection of the brain. (?) This is the merest outline, but the drawing is true to nature. May I say, once for all, that any peculiar shape of head, large or small, has, like the epileptic brain, long been admitted to defy diagnosis. Further, how much have we not gained in the diagnosis of cerebral disease by the known tendency of renal cachexia to induce chronic or subacute cerebritis, and of embolism to cause plugging of the vessels?

Professor Rolleston, in his Address in Physiology, was acute and ingenious in his speculative application of certain physiological conclusions to questions of practical medicine. He was happy in pointing out how scientific researches, undertaken in the first instance for the rectification of unsound theories, and the elucidation of what might seem to be mere speculative truth, come ultimately to bear upon the commonest rules of medical practice. It is impossible to say of any knowledge that it is barren knowledge; its practical fruits may not be immediate, but they will, in no case, fail to be reaped. At the conclusion of his address, Professor Rolleston touches on the relations of physiology and psychology:—

The physiologist, as such, has nothing to do with the data of psychology which do not admit of being weighed or measured, nor of having their force expressed in inches or ounces. This language, which I long ago employed myself (*Nat. Hist. Rev.*, April, 1861; *Med. Times and Gazette*, March 15, 1862), coincides with an utterance which I am glad to see in Mr. Herbert Spencer's recently issued first number of his new edition of 'Principles of Psychology.' There (part i. chap i. p 48), Mr. Spencer says, 'It may safely be affirmed that physiology, which is an interpretation of the physical processes which go on in organisms in terms known to natural science, ceases to be physiology when it imports into its interpretations any psychical factor, a factor which no physical research whatever can disclose or identify, or get the remotest glimpse of.' But, I apprehend, if the physiologist wishes to become an anthropologist, he must qualify himself to judge of both sets of factors. There is other science besides Physical Science, there are other data besides quantifiable data. Schleiden, a naturalist of the very first order, compares the Physical Philosopher (*Materialismus der neueren deutschen*

Naturwissenschaft, p. 48), who is not content with ignoring, without also denying, the existence of a science based on the consciousness, to a man who on looking into his purse and finding no gold there, should not be content with saying, 'I find no gold here,' but should go further and say 'there is no such thing as gold either here or anywhere else.' It is interesting to note that here in Oxford till within a few years of the present we narrowed the application of the word 'Science' in what seems now to be a curiously perverted fashion. For, ignoring all the physical world as entirely as though we had been already disembodied, we used the word to denote and connote only logic, metaphysics, and ethics. By a 'student of science' in my undergraduate days was meant a student of the works of Aristotle, Kant, and Sir William Hamilton. The wheel has since made somewhat of a circle; our nomenclature, like much else belonging to us, is altering itself into a closer correspondence with the usages and minds of the larger world outside; the so-called 'student of science' of the year 1850 is now said to go into the 'School of Philosophy;' and 'the student of science,' as our terminology runs in the year 1868, will be found at the Museum studying the works of Helmholtz, Miller, and Huxley. I do not say this by way of triumph, but rather in that of regret, little disposed or used though I am, and hope always to remain, to regret or deprecate change as such. For there is a philosophy of both subjects, and a science also in both; and I would hope that both the one and the other might still retain a lien on the two words and the two things, nor suffer its rival to establish a claim for sole possession by its own default in exercising a right of usage.

I believe, however, that if men would take as much and the same care in these psychological questions as the physiologist does in his experiments and observations, to overlook none of the conditions and circumstances of the entire complex of phenomena they undertake to decide upon, they would come to see that above, and often behind, but always beside and beyond the whirl of his emotions and the smoothly-fitting and rapidly-playing machinery of his ratiocinative and other mental faculties, there stands for each man a single undecomposable something—to wit himself. This something lives in his consciousness, moves in his will, and knows that for the employment and working of the entire apparatus of feelings and reasonings it is individually and indivisibly responsible. Its utterances have but a still small voice, and the turmoil and noise of its own machinery may, even while working healthily, entirely mask and overwhelm them. But if we withdraw ourselves from time to time out of the smoke and tarnish of the furnace, we can hear plainly enough that, howsoever the engine may have come together, and into its present being, the engineer, at all events, is no result of any processes of accretion and agglomeration. Science, business, and pleasure are but correlations of the machinery in its different applications and activities; we are something besides all this, mani-

festing ourselves to others in the decisions of our will, and manifesting ourselves to ourselves in our aspirations and consciousness of responsibility.

' And e'en as these are well and firmly fixed,
In dignity of being we ascend.'

Pity that it is not possible for the human intellect to be nourished on words of imposing sound and mysterious vagueness, but that it is driven onwards, sooner or later, by an inexorable fate to analyse their meanings, and to get at the sober facts which lie beneath them! How comforting were it only possible to rest content with "single undecomposable somethings," "individually and indivisibly responsible" to themselves, and manifesting themselves to themselves in "aspirations and consciousness of responsibility!" To speak after the manner of Fuller, it is to be feared that this "flourishing language," though well intended, may be ill interpreted, and give occasion to unskilful readers (more minding the words than the matter) to conclude from such rhetorical premises a dogmatical point in psychology.

Professor Haughton's address on "The Relation of Food to Work done by the Body, and its Bearing on Medical Practice," was a remarkable triumph. For one hour and a half he held the attention of his audience enchained while he discoursed most wittily and instructively on one of the driest of difficult subjects. We cannot venture to criticise his researches, or give any opinion with regard to the soundness of his conclusions; indeed, we should never have dreamed that it would be possible for many, many years to come to express in exact mathematical formulæ the complex problems involved in the subject of his discourse. Consequently, it is not easy to resist some feeling of scepticism with regard to his results; they would have seemed less uncertain if they had not had such a very exact and positive character. One point may be noticed here, on which Professor Haughton expresses himself strongly, and on which it would be interesting to know what is the received opinion among physiologists. Speaking of the muscles and brain as acting simply as the media of communication between the food received and the work developed by it, he says:—

Let us take, as illustrations, the muscles and brain, regarded as the organs by means of which mechanical and intellectual work is done. These organs resemble the piston, the beam, and the fly-wheel

of the steam-engine, and, like them, only transmit or store up the force communicated by the steam in the one case, and by the products of the food conveyed by blood in the other case. The mechanical work done by the steam-engine must be measured by the loss of heat experienced by the steam in passing from the boiler through the cylinder to the condenser, and not by the loss of substance undergone by the several parts of the machinery on which it acts. In like manner the mechanical or intellectual work done by the food we eat is to be measured, not by the change of substance of the muscles or brain employed as the agents of that work, but simply by the changes in the blood that supplies these organs—that is to say, undergone by the food used, in its passage through the various tissues of the body, before it is finally discharged in the form of water, carbonic acid, or urea.

The Divine Architect has so framed the animal machine that moves and thinks, that the same blood which by its chemical changes produces movement and thought also repairs the necessary waste of the muscles and brain, by means of which movement and thought are possible; just as if the steam that works an engine were able, without the aid of the engineer, to repair the wear and tear of its friction and waste spontaneously; but no greater mistake is possible in physiology than to suppose that the products of the changes in the blood, by which mechanical or intellectual work is done, are themselves merely the result of the waste of the organs, whether muscles or brain, on the exercise of which that work depends.

Certainly, if it be a mistake, we have long made the mistake of believing that the work done by muscle was closely related to, if not actually measured by, the waste of its substance. The analogy of the steam-engine is far from convincing; and if we ventured any criticism, it would be that the learned and accomplished Professor had, throughout his address, applied much too boldly—indeed, unwarrantably—physical laws to the interpretation of the infinitely more complex and specialized phenomena of life. Without believing in any hypothetical vital force, it is still possible to believe that the phenomena of nervous and muscular action are far from analogous to the phenomena of a steam-engine's action. Surely, no one would undertake to explain chemical affinity by the laws of gravitation, or of magnetic attraction. How, then, explain the far higher processes of vital activity by inductions from purely physical phenomena? The problems of Physiology are not merely problems of Physics; they are problems of Physics, and a great deal more besides. We conceive, therefore, that the laws of inorganic matter alone are inadequate to the scientific interpretation of the processes of organic life.

The Practitioner. A Monthly Journal of Therapeutics. Edited by FRANCIS E. ANSTIE, M.D., F.R.C.P., and HENRY LAWSON, M.D. Macmillan & Co. Nos. I., II., III.

The editors of this new monthly medical journal aim at supplying brief and clear records of the results which have been worked out in this country and in other countries respecting the action of remedies. Three numbers have now appeared, each of which contains a series of short original articles upon special subjects in Therapeutics, a *resumé* of the more therapeutical records in foreign journals, reviews of important works bearing on the treatment of disease, and a sketch of practical medicine for the month, as observed in the London and provincial hospitals.

So much for the special design of the new journal, which on all hands will be admitted to be, *quoad* its specialty, excellent. Nor will any one dispute that the execution of their design thus far has justified the literary venture. We have long been of opinion that there was room for a good monthly journal of medical science and practice, and we cannot help a feeling of regret that the experienced editors of the "Practitioner" have not thought well to widen the scope of their undertaking. Why limit their journal to Therapeutics? Is such a limitation really most calculated to advance Therapeutics? There is not a discovery, however purely scientific and even barren it may seem, which may not have an important therapeutical application. And who is to apprehend the practical application and make the experiment? Is it not some one of the practitioners whom this journal addresses? But how shall he know if he has not been taught? How can he advance therapeutics if he is deprived of that information concerning recent progress in medical science on which a sound system of therapeutics must rest? By begging him to communicate his therapeutical experience under such circumstances, is there not some danger of encouraging a very crude kind of empiricism?

Another reason which would appear to us to militate against the limited scope of the new journal is the probable difficulty of finding satisfactory contributions with which to fill it month after month. The editors complain, and complain with some justice, that "while our knowledge of the facts of disease, as well as of the facts of healthy physiological life, has made great progress of late years, therapeutics, or the science (*art*?) of healing has remained very nearly where it was when

Rousseau exclaimed, "*Laissez-moi mourir, mais ne me tuez pas.*" But if this remark be granted, what follows? That there will be a dearth of really valuable therapeutical matter. For it is hardly to be assumed that the existence of a special medium for the intercommunication of ideas respecting the action of remedies will elicit, month after month, a sound and increasing knowledge of the action of remedies; on the contrary, the progress of the *art* of healing must surely be indissolubly bound up with the progress of the *science* of the functions of the body in health and in disease. Therefore it is that we sincerely regret that the editors have not thought well to establish a journal of *medical science and therapeutics*. We shall rejoice, however, if the event prove that our views have been erroneous.

The first number contains two articles which have a particular interest for our readers—one on the "Therapeutic uses of Bromide of Potassium," by Dr. R. Reynolds; the other on the "Hypodermic Injection of Remedies," by Dr. Anstie. Dr. Reynolds mentions several cases of epilepsy, some of them having been of long standing, in which the best results followed the use of the bromide of potassium. He makes the following remarks concerning the action of the drug:—

1 The facts that I have now stated are sufficient to show that the influence of bromide of potassium upon epilepsy is not to be referred to the "chapter of accidents," but that it is an agent possessing a very distinct and beneficial effect upon one of the most distressing and obstinate of diseases. These cases are by no means rare or exceptional; they are, on the contrary, but a few specimens of what has been observed in very many others, and they are brought forward here in order to remove all doubt that might exist in the minds of some, who have not personally observed the action of the medicine in a large number of cases, as to its real efficiency. There is yet a further object in their citation, and it is this, to corroborate these general propositions—which it would be impossible to substantiate by details in this paper—viz., that in the vast majority of cases bromide of potassium is of signal service in the treatment of epilepsy; that it absolutely cures very many, and that it rarely fails to diminish notably the number of attacks in those whom it does not cure. As with other modes of treatment, not only of this disease, but of all others, it is most successful in recent cases; but, as I have shown by examples, it does not fail to be of service in those of long standing; and it most certainly is as useful in those cases where the fits are frequent and severe, as it is in others where they are of rare occurrence and milder type. In some persons it fails to exert any beneficial influence; but these instances

form an exceedingly small minority; and in the present state of uncertainty with regard to the exact pathology of the large group of diseases constituting what we term "epilepsy," such instances should not be allowed to detract from the reputation of so useful a medicine, but should only stimulate inquiry as to the nature of their departure from the more ordinary type of the disease.

The cases of epilepsy which have proved the most amenable to the action of bromide of potassium are those in which the attacks have been exclusively or prevailingly those of the severer type, *le haut mal*; in which the rate of recurrence has been rapid; and in which the fits have occurred mainly during the day; whereas, on the contrary, those that have resisted its action have been marked by a predominance of slight or abortive seizures, *le petit mal*; or have exhibited the severer attacks at rare intervals, or have suffered from them only during the night.

These statements, it must be remembered, are not absolute; they express only the general results of observation on many hundreds of cases; and particular exceptions occur to them in each direction.

In regard to the effect of the bromide in the treatment of certain diseases affecting the cerebral centres in such a manner as to prevent sleep, Dr. Reynolds' experience is as follows:—

In *Acute Mania*, and especially where there is much heat of head and redness of conjunctivæ, I have repeatedly seen refreshing sleep follow the administration of one full dose. The patient may not have recovered from his mania when he awakes, but he is calmer and less exhausted; and after a few days of the treatment above suggested, is sometimes well. In other cases, however, I have found no good result from the exhibition of this medicine. In the wakefulness of *Melancholia*, bromide of potassium has often, in my experience, proved worse than useless. It has apparently aggravated the feeling of distress. Not so, however, in all cases; I have known it to be eagerly sought for by the patient's friends as the one thing that seemed to give relief.

It holds a similarly doubtful position in regard of *Hypochondriasis*, having utterly failed to afford any relief in some cases, and having been highly prized by other patients. In both of these maladies it does but palliate symptoms. It must be remembered, however, that to relieve "symptoms" in the latter affection—hypochondriasis—is almost tantamount to cure.

Acute Alcoholism, with *insomnia*, is often most beneficially treated by this medicine. It frequently induces sleep when opium has failed to do so; and there is no prejudicial effect produced by it upon the processes of secretion or excretion.

Dr. Anstie, who is well known to have given special attention to the hypodermic injection of remedies, gives the results of his experience in a very useful article. He estimates highly this method of administering certain drugs, and sets forth clearly its advantages. With regard to the use of morphia hypodermically, he makes the following remarks:—

The advantages of morphia hypodermically administered over opiate medication by the stomach are such as would be *à priori* incredible, nor can they as yet be fully explained. In particular, it is impossible to account for the far greater *permanence* of its action in relieving nerve-pain, which is so marked as that its discovery has initiated quite a new era in the treatment of severe neuralgias. Affections of this kind, which under any of the older plans of treatment would at least have been very tedious, are sometimes cured after three or four injections of $\frac{1}{6}$ grain each; and very many yield after a week or ten days of such injections, repeated twice daily. Even the inveterate and incurable “epileptiform” facial tic may be so benefited, that life, from being a horrible and intolerable burden, may become, not cheerful indeed, but comparatively peaceful and calm. Moreover, it is certainly the fact that there is far less tendency with hypodermic than with gastric medication to rapid and large increase of the dose, when morphia is used for a long time together. And the “antiphlogistic” virtues which have been ascribed to opium would certainly, if ever, appear to be verified by the effect of hypodermic injections of morphia in threatening pericarditis, pleurisy, &c.

Atropine Dr. Anstie has found to be an extremely valuable hypodermic agent for the relief of local pain and spasms. He says of it:—

It is somewhat less frequently tolerated (in doses which are sufficient to relieve pain) than morphia; but it is an interesting and very valuable fact, that persons who are quite unable to bear morphia will often bear atropine, and *vice versa*; and even in cases when both remedies are tolerated, we sometimes find morphia, and sometimes atropine (the latter most frequently), producing a *permanent* effect. This relation, which I have often noted, has been remarkably illustrated in two cases which have been under my care during the last few days: one was a case of severe neuralgia attending shingles, and the other a case of extreme neuralgic pain from long impacted calculus in the ureter. In both cases morphia failed, and in the latter it always caused most unpleasant toxic symptoms, while atropine produced the most beneficial results in doses of $\frac{1}{60}$ and $\frac{1}{100}$ of a grain, respectively. I have also obtained excellent results with atropine in a case of spasmodic asthma, when opiates could not be tolerated in any shape; and,

on the other hand a case was lately under my care of sciatica in a young lady, where morphia acted beautifully, though atropine could not be borne even in the dose of $\frac{1}{100}$ grain.

There are many more valuable contributions to the three numbers, which, however, it does not fall within the scope of this brief notice to particularise here. If the editors are able to continue their work as well as they have begun it, there can be no doubt that they will do a most important service to therapeutics, and justly earn the gratitude of practitioners throughout the kingdom. And if, after further experience, it should seem advisable to enlarge the design of the journal, and make it a monthly record of medical science and practice, we believe that it would be a great commercial success, as well as a great help to medical science.

Education and Training considered as a subject for State Legislation; together with Suggestions for making a compulsory law both efficient and acceptable to the People. By a PHYSICIAN. Churchill & Sons. 1868.

The author descants very forcibly on the responsibility of parents and of society for the education and training of children, sets forth plainly the evidence of deficient education and training in the country, points out what efforts society and the State have made thus far to mitigate the evils of deficient education, and finally puts forth a scheme for the general education and training of children. He has, evidently, very much at heart the cause which he pleads so earnestly, and it is equally evident that he has considered carefully the details of the scheme which he recommends. He holds it to be the bounden duty of the State to interfere, and to render education compulsory. "Not to educate and train the mind of a child is to inflict upon it injury of the severest kind, amounting to moral murder in many cases."

The pecuniary means required for the purpose of carrying out a compulsory law should include the existing ones of school fees, voluntary subscriptions, and payment by Government for results; but, in addition, an enforced parochial rating in all cases where the preceding sources of income are

insufficient for parochial schools. "In this way may we hope to remove the dark cloud of human misery and debasement that in our pauper and criminal population hangs over our heads, depressing the spirit and paining the conscience of the nation; but, in addition, we shall give a safe direction to the daily increasing momentum of progress in the masses, and thus make it tend to the safety and happiness of the country and the whole community, instead of allowing it to run into disorder and humiliation."

PART III.—QUARTERLY REPORT ON THE PROGRESS OF PSYCHOLOGICAL MEDICINE.

NOTE.—*The length of the Report of the Proceedings at the Annual Meeting compels us to omit the usual Quarterly Report on the Progress of Psychological Medicine.*

PART IV.—PSYCHOLOGICAL NEWS.

Proceedings at the Twenty-third Annual General Meeting of the Medico-Psychological Association, held at the Royal College of Physicians (by permission of the President and Fellows), on Tuesday, August 4, 1868, under the Presidency of W. H. O. SANKEY, M.D. Lond., F.R.C.P.

AGENDA:—

- I. Meeting of the General Committee, at 10.30 a.m.
- II. Morning Meeting of the Association, at 12.0 noon.
 1. Address by the retiring President (*Dr. Lockhart Robertson*).
 2. General Business of the Association.

The following Notices of Resolutions and Amendments of the Rules have been received:—

- a. *Dr. Christie* and *Dr. Davey* will move Resolutions as to the mode of Election of the President; and *Dr. Maudsley* and *Dr. Tuke* will move a Resolution as to the duration of the President's office.
- b. *Dr. Belgrave* and *Dr. Rhys Williams* will move a Resolution that Quarterly Meetings of the Association be held for the purpose of scientific discussion.
- c. *Dr. Davey* will move a Resolution regarding the Election of Honorary Members.

III. Afternoon Meeting of the Association, at 3.0 p.m.

1. Address by *W. H. O. Sankey*, M.D. Lond., President.
2. *Professor Laycock* will read a Paper, "Suggestions for the better application of Psychological Medicine to the administration of the Law," and will move the appointment of a Committee.
3. *Dr. Kirkman* will move a Resolution relative to the Superannuation Clause of the Lunacy Acts Amendment Act, 1862.

The Council met at eleven a.m.

THE MORNING MEETING

of the Association was held at noon. Forty-five members of the Association were present, including Dr. Bucknill, F.R.S., Professor T. Laycock, Dr. Tweedie, Dr. Hughlings Jackson, Hume Williams, Esq., Dr. Kirkman, Dr. Lockhart Robertson, Dr. Sankey, Dr. Davey, Dr. Duncan, Dr. Sibbald, Dr. Blandford, Dr. Maudsley, Dr. Harrington Tuke, Dr. Paul, Dr. Monro, Heurtley Sankey, Esq., E. Toller, Esq., G. W. Mould, Esq., W. Rorke Ley, Esq., Dr. T. C. Shaw, Dr. W. Wood, Dr. Thos. B. Christie, Dr. Manley, Dr. J. Langdon H. Down, Dr. Edwd. T. Hall, Dr. Alonzo H. Stocker, Dr. Eastwood, Dr. W. Rhys Williams, Dr. H. C. Kempthorne, Dr. Moodie, Dr. T. L. Rogers, G. R. Irvine, Esq., Dr. H. Stillwell, Dr. J. T. Sabben, Dr. J. T. Arlidge, Dr. Octavius Jepson, Dr. J. Murray Lindsay, Dr. W. J. Hunt, Dr. Ellis, Dr. T. S. G. Boisragon, Dr. D. Mackintosh, Dr. R. Boyd, Dr. Arthur Harrison, Dr. Edwd. S. Haviland, Dr. Ed. Hart Vinen, Geo. R. Dartnell, Esq., Inspector-General of Hospitals, Dr. Frederic M. Smith, Dr. John A. Campbell, Dr. Edmund Lloyd, G. H. Dodsworth, Esq., &c., &c., &c.

Dr. Lockhart Robertson, the retiring President, took the chair and delivered the following address:—

GENTLEMEN,—

Before I resign this chair, which, by your great favour, I have occupied for the past year, I would ask your leave to say a few words—which shall be most brief—on two or three points having reference to the business of this Association.

I. I would give you an account of my stewardship. Having heard a rumour of possible lunacy legislation during the past session, I placed myself, in January, in communication with the Commissioners in Lunacy, from whom I received a most friendly reception. I specially brought to their notice the Superannuation Clause of the Lunacy Acts Amendment Act, 1862, as one which the Medical Superintendents of the County Asylums unanimously desired to see altered, and I left with the Board a copy of the report of our *Committee on the Superannuation Clause*, adopted at the annual meeting in 1866. On the 14th of February the Commissioners addressed the following letter to me:—

“Office of Commissioners in Lunacy,

“19, Whitehall Place, S.W.,

“14th February, 1868.

“SIR,—

“Adverting to possible legislation this Session on the subject of Asylum Superintendents’ pensions, I am directed by the Commissioners to inform the Committee of the Medical-Psychological Association, that this Board feels that the opposition in Parliament to the claims set

forth by the Association in their last published resolution on the subject would be quite insuperable. The Commissioners, desirous of supporting as far as possible the interests of the Superintendents, propose simply to seek an excision of the Statutory proviso which now renders confirmation by the Quarter Sessions necessary to any valid grant of superannuation. Should the Committee, after this communication, desire to press their views upon the Commissioners, it is requested so to do without delay. A meeting of the Board takes place on Monday next, at 12 o'clock, and would afford an opportunity of discussing the matter which may not again occur in time for legislation this Session.

"I am your obedient Servant,

"CHARLES PALMER PHILLIPS,

"Secretary."

"Dr. Lockhart Robertson,

"Haywards Heath Asylum."

I attended the Board at the time specified, accompanied by our Honorary Secretary. The result of this conference was to confirm my impression that no hope could be entertained of Parliament placing the retirement upon the footing this association desired, viz., as a matter of right. Acting on an invitation from the Commissioners, I subsequently transmitted to them the following memorandum on the question, accepting their facts, and rather endeavouring after what might be attainable, than adhering to an impracticable resolution:—

Memorandum on the Superannuation Clause submitted to the Commissioners in Lunacy, by the President of the Medico-Psychological Association, February, 1868.

1. I desire respectfully to thank the Commissioners for their courteous reception of the claims I have on several occasions made on them to aid the Medico-Psychological Association to obtain a revisal of the superannuation clause of the "Lunatic Acts Amendment Act," 1862.

2. The following illustrations will serve to show the unequal and unjust operations of the existing superannuation arrangements in the County Asylums.

Dr. Williams retired from the superintendence of the Gloucester Asylum, after seventeen years' service, disabled by an injury received in the performance of his duty. Two-thirds of his salary and allowances would have been £532 a year. Dr. Williams received £350.

In 1862 Dr. Huxley retired from the superintendence of the Kent Asylum, after a service of fifteen years. The value of his salary and allowances was equal to Dr. Williams', viz., £800. He only received £450, instead of £532 (two-thirds).

In 1866 Mr. Hill received, on his retirement in grave ill health from the superintendence of the East Riding Asylum, the full allow-

ance sanctioned by the Act, viz., £575, being two-thirds of his salary and allowances.

In 1867 Dr. Lawrence retired from the superintendence of the Cambridge Asylum, after seven years' service, utterly broken in health. The sessions granted him, by way of superannuation, an allowance of £50 a year for twelve years.

In 1868 Dr. Boyd, on his retirement from the Somerset Asylum, received an annuity of £450, instead of £530, which would have been two-thirds of his salary and allowances. Mr. Ley, with a larger allowance than Dr. Boyd, and the same salary, received only an annuity of £250 from the Mixed Committee of the Oxford Asylum.

3. I regard the requirements of the 12th section of the act—that no annuity by way of superannuation, granted by the visitors of any asylum, shall be chargeable on or payable out of the rates of any county until such annuity shall have been confirmed by a resolution of the justices in general or quarter sessions assembled—as the cause of the above unsatisfactory results in the working of so important an arrangement, and one so intimately related to the well-working of the public asylum system as the superannuation of its officers.

4. Referring to my last interview with the commissioners I am prepared to say that I accept the weight of their arguments against the possibility of obtaining a compulsory pension clause, as proposed by the committee of this association. I believe that much difficulty will be removed by the proposal of the commissioners to revert to the original provisions of the 16th and 17th Vict., c. 97, s. 57, and to leave the granting of superannuation allowances at the uncontrolled discretion of the Committees of Visitors, and I accept this proposal as an additional evidence of the traditional policy of the board to benefit by all means in their power the officers of the County Asylums. It is to the evidence of their chairman, the Earl of Shaftesbury, that we are indebted for the important statement in the report of the Select Parliamentary Committee on Lunatics (27th July, 1860), that, looking to the peculiar nature of our duties and to the painful consequences which are known to result from incessant intercourse with the various forms of mental disease, when prolonged for many years, the period of service was reduced from twenty to fifteen years. The proposal of the Board to endeavour to obtain a reversal of the provision which placed the retirement on the hazardous and chance approval of so varying a tribunal as the quarter sessions, and to restore the decision of the question to the Committees of Visitors, is as favourable a settlement of the question as we can venture to hope for, and I shall certainly feel that the Commissioners have aided us to the best of their ability, should this arrangement be sanctioned by parliament this session.

C. LOCKHART ROBERTSON,
President of the Medico-Psychological Association.

Haywards Heath, February, 1868.

The Board acknowledged this memorandum in the following letter :—

“ Office of Commissioners in Lunacy,
 “ 19, Whitehall Place, S.W.,
 “ 28th February, 1868.”

“ SIR,—I am directed to acknowledge with thanks receipt of your letter of the 22nd instant, enclosing memorandum on the superannuation of Medical Superintendents, and to inform you that the memorandum was read at the last board meeting at this office.

“ I am, Sir, your obedient servant,
 “ CHARLES PALMER PHILLIPS,
 “ Secretary.”

“ Dr. L. Robertson.”

As the result of this communication, I wrote the *Note on the Superannuation Clause* which was published in the “ Occasional Notes of the Quarter ” in the *Journal of Mental Science* for April last. I also related there the past history of our discussions on this question.

II.—I would express an earnest hope, which I know many of our most valued members share, that we may be enabled to-day to conclude those weary discussions as to the rules, to which already so much valuable time has in past years been devoted. The discussion to-day will turn on the construction of Rule IX., as it relates to the election of President. I hope we may to-day, once for all, complete our discussion of these subjects, and which, I am bound to add, excite abroad considerable ridicule when they are published in the ordinary proceedings of the annual meetings of the Medico-Psychological Association. I lay on the table, by way of contrast to our proceedings in 1867, under my presidency, the official reports of the transactions at the annual meetings of the American Association of Medical Superintendents of Asylums, held at Philadelphia, May, 1867; and of the *Versammlung Deutscher Irrenärzte*, held at Hepperheim and Frankfort in September, 1867. I believe that the proposal to be brought before us to-day by Dr. Belgrave and Dr. Rhys Williams—“ That quarterly meetings of the Association be held for the purpose of scientific discussion ”—is a step in the right direction.

As one of the committee appointed in 1864 to revise the Rules, I may perhaps be permitted so far to forestall the discussion of which notice has been given by Drs. Christie and Davey, who will move resolutions as to the mode of election of the President, and to say that in framing the rule for the election of President, we desired to place it on the widest basis, and thus consented to add to the previous requirement of the President being elected at and by each annual meeting *that balloting papers be used*, in order that freedom of choice might be enjoyed by all.

A similar practice exists elsewhere. Thus I lay on the table a copy of the charter, rules, and balloting paper of the Royal Medico-Chirurgical Society, than which we could have no better guide. The principle which the Council of our Association have hitherto adopted of recommending a candidate for the Presidency, leaving it to the option of any member to propose any other candidate, is the practice followed by that most distinguished of our medical societies, and I should regret if our discussion to-day led us to deviate from this precedent. Between the Council recommending a candidate and the Council electing the President, there is the widest difference. It is only the former practice which, for the sake of order, I advocate.

Notice of another resolution was given at our last annual meeting by Dr. Maudsley and Dr. Tuke, as to the duration of the President's office.

I can say, for others who have filled this chair as for myself, that we have felt the limited tenure of our office an obstacle to our usefulness. If the President of this Association is to exert any personal influence at the Home Office or at the Lunacy Board in questions affecting our interests, he must, in my humble judgment, be a man whose authority to represent us should be recognised by a longer tenure of office than is now by our rules conferred.

III.—Lastly, I have received several communications during the year, reminding me that the Medico-Psychological Association has not visited Ireland since 1861. I am a willing advocate of her cause. We were in Scotland in 1858, and again in 1866. I venture to suggest that the claims of Ireland be not longer overlooked, lest we alienate from the Association the many valued friends we possess there, and who, at great inconvenience and cost, come year by year to London to attend our meetings.

IV.—I cannot leave this chair without publicly acknowledging in my name and in yours the high honour which this college—to the President and Fellows of which we are indebted for the great privilege year by year of meeting within its walls—has conferred on our Association in the late election of its President and Honorary Secretary into the Fellowship. Dr. Harrington Tuke and I are both fully aware how much we are indebted to our official connection with the Medico-Psychological Association for our new honours, and I trust we may learn to bear them worthily, to your credit and to ours.

On the conclusion of his address, Dr. Robertson vacated the chair to his successor,

Dr. W. H. O. Sankey, whose address, as president for the year, was listened to with great attention.

[For President's address see Part I.—Original Articles.]

Dr. Maudsley moved, and *Dr. Monro* seconded, a vote of thanks to the President for his excellent address, and the proposition was carried unanimously.

The minutes of the last meeting were affirmed to have been correctly recorded.

The *President* stated that the next business was to select the place of meeting for the year 1869.

Dr. Tuke, the secretary, stated that the council recommended that they should meet in London again next year. They were willing and anxious to go to Dublin, but understood that the members of the association in that city were not quite ready to receive them, and therefore it was thought better to postpone their visit to Dublin for a time.

Dr. Christie suggested that the next meeting should be held in the north, and was sure that whether they met at York or Leeds, the association would have a most hearty reception. There were several asylums close by, and he thought it would be well to have a meeting at one of the towns he had named.

Dr. Duncan, of Dublin, explained the circumstances which had led the Council to recommend that the visit to that city should be deferred for another year, and expressed the pleasure it would give the Irish members to receive a visit from their brethren in England.

Dr. Christie proposed, and *Dr. Tuke* seconded, that the next meeting be held at York.

Dr. Maudsley moved, as an amendment, that the meeting should be held in London.

Dr. Robertson seconded the amendment, and said that when held elsewhere the meetings had been failures. At Liverpool, only about six members attended. He thought it was better for the meetings to be held in the metropolis, with an occasional visit to Dublin and Edinburgh.

Dr. Christie—*Dr. Robertson* is mistaken in saying that only six attended the meeting at Liverpool. There was a very good attendance (hear, hear).

On the amendment being put, that the next meeting be held in London, 13 hands were held up for, and 19 against. *Dr. Christie's* motion was then put, and 15 voted for it. Consequently, the next annual meeting will take place at York.

Mr. Mould proposed that the meeting should be held on the day previous to the British Medical Association meeting at Leeds. York and Leeds were within an hour and a half's ride of each other, and he believed that many would like to have the opportunity of attending both meetings (hear).

Mr. Ley seconded.

Agreed to.

The President—The next business will be the election of President for the ensuing year.

Dr. Tuke said the Council recommended *Dr. Boyd* and Professor *Laycock* as gentlemen well fitted for the office. The names were now put alphabetically.

Dr. Christie had a strong feeling in reference to Professor *Laycock*. There were good reasons why they should elect that gentleman to the presidential chair, and one particular reason he must mention. When the meeting of the Association was held in Edinburgh, Professor *Laycock* was then asked to take the chair, but being then seriously ill, he declined, not knowing whether his life would be spared; but his health was, happily, now restored, and they had the pleasure of seeing him amongst them that day. He hoped, therefore, that the Professor would be unanimously elected.

Dr. Maudsley said, in the election of President, the rule was to vote without discussion, and he thought it would be best to at once proceed to the ballot.

Balloting papers were handed round to the members.

The President was sure they were all unanimous on one point—they wished that the election should be proceeded with in the most fair and liberal manner. It was competent for any gentleman to propose a member as President.

Dr. Christie thought it was rather an unusual course for the Council to recommend two names. He thought, too, that having proposed a member, it was perfectly competent for him to state his reasons for doing so.

The President—*Dr. Boyd* has just handed up a card, on which are the words: "Please to withdraw my name, and elect *Dr. Laycock*" (applause).

Dr. Christie proposed that Professor *Laycock*, of Edinburgh, be elected President for the ensuing year.

Dr. Belgrave seconded.

Upon the ballot being taken, there appeared 31 votes for *Dr. Laycock*, and one for *Dr. Davey*.

The President declared *Dr. Laycock* duly elected by two-thirds of the members present.

Carried unanimously.

Dr. Laycock.—I beg to return thanks for the honour you have done me. It will be both my pleasure and my duty to do what I can for the association (applause).

On the proposition of *Dr. Duncan*, seconded by *Dr. Down*, *Dr. Paul* was re-elected treasurer.

Dr. Down proposed that *Dr. Tuke* be re-appointed general secretary.

Dr. Monro seconded.

Carried unanimously.

Dr. Tuke returned thanks for the honour which had been done him. He had to apologise to the members for the alteration which had been made in the day of meeting, which had led, perhaps, to some incon-

venience to London members. It was done at the express wish of their Irish and Scotch friends, who were desirous of being at Oxford on the following day.

Dr. Stewart and Dr. Rorie were re-elected hon. secretaries for Ireland and Scotland.

The meeting then proceeded to the election of Editors of the Journal.

Dr. Manley proposed that Dr. Robertson and Dr. Maudsley be re-elected in that capacity, and remarked upon the able manner in which those gentlemen had conducted the Journal.

Dr. Monro seconded.

Dr. Belgrave moved that Dr. Down be requested to assist the present Editors in the conduct of the Journal. Dr. Down had written some able papers, and was well qualified for the office; and without casting the slightest reflection upon their Editors, he thought it would be well for those gentlemen to have assistance.

Dr. Eastwood seconded the amendment proposed by Mr. Belgrave.

In the opinion of those present, it was, however, thought not advisable to further divide the responsibility in the conduct of the Journal.

Dr. Down did not wish his nomination to be forced upon the meeting.

The amendment was withdrawn; and Dr. Robertson and Dr. Maudsley were re-elected Editors, *nem. con.*

Dr. Paul thanked the members for the compliment they had paid him in re-electing him as treasurer. He read the report, which was adopted.

The Treasurer's Annual Balance Sheet, July, 1868.

RECEIPTS.		EXPENDITURE.	
	£ s. d.		£ s. d.
To Balance Cash in Hand 1866-7	.. .. 25 4 3	Annual Meeting...	... .. 16 6 0
To Subscriptions received	.. .. 157 10 0	Editorial expenses	... .. 15 8 0
By Secretary for Ireland	.. .. 26 5 0	Printing and publishing	... .. 165 9 9
By Secretary for Scotland..	.. .. 25 4 0	Sundries—	
		Treasurer ...	... .. 3 4 6
		Secretary for Ireland	.. .. 0 7 2
		Secretary for Scotland	.. .. 0 8 11
		General Secretary ..	.. .. 7 1 6
		Balance in Treasurer's hands	.. .. 25 17 5
	<u>£234 3 3</u>		<u>£234 3 3</u>

Audited by G. FIELDING BLANDFORD.

(Signed) J. H. PAUL, M.D., Treasurer.

ROYAL COLLEGE OF PHYSICIANS,
August 4th, 1868.

The *Secretary* then read the following list of candidates for admission as members of the Association:—

- Dr. William Macleod, M.D. Edin., Deputy Inspector General, Naval Lunatic Hospital, Great Yarmouth.
 Dr. Hearder, M.D. Edin., Medical Superintendent, County Asylum, Carmarthen.
 Dr. Arthur Strange, M.D. Edin., Assistant Medical Officer, County Asylum, Chester.
 Dr. John H. Davidson, M.D. Edin., Medical Superintendent, County Asylum, Chester.
 J. Hullah, M.R.C.S., Assistant Medical Officer, City of London Asylum, Dartford.
 William Orange, M.D. Heidelberg, M.R.C.P. Lond., Deputy Superintendent, State Asylum, Broadmoor, Wokingham.
 John J. Jackson, M.D., Medical Superintendent, Lunatic Asylum, Jersey.
 G. Fowler Boddington, M.D., Somerville House, Sutton Coldfield.
 C. F. Knight, Esq., Sibford Ferris.
 Joseph Marsh, M.D., Assistant Medical Officer, County Asylum, Littlemore.
 John Alfred Lush, Esq., Assistant Medical Officer, Leicestershire and Rutland County Asylum.
 Dr. De Berdt Hovell, F.R.C.S., Five Houses, Clapton.
 Edward Lister, Esq., L.R.C.P. Edin., Haydock Lodge Retreat.
 Professor Banks, of Trinity College, Dublin.
 Dr. W. T. Gairdner, Professor of Medicine, Glasgow.
 Edmund Lawless, Esq., R.N., St. Patrick's Asylum, Dublin.
 Joseph H. Hatchell, M.D., Resident Physician, Maryborough Asylum.
 George St. G. Tyner, M.D., Resident Physician, Clonmel Asylum.
 William Daxon, M.D., Resident Physician, Ennis District Asylum.
 James Stewart, Esq., B.A., R.N., H.M.S. "Constance."

The names of the above gentlemen were put to the ballot, and all were received as members of the Association.

The *President* stated that Dr. Duncan and Dr. Boyd retired by rotation from the council, but were eligible for re-election.

Dr. *Christie* would be sorry to oppose the election of those gentlemen, but thought it was advisable now and then to have an infusion of new blood. In this instance, however, he should not oppose the re-election.

On the proposition of Dr. *Monro*, seconded by Dr. *Wood*, Dr. Langdon Down was elected auditor, and Dr. Duncan and Dr. Boyd were re-elected on the council.

The following notices of motion were given:—

Dr. *Arlidge*—(Notice of alteration of Rule XII.) "That the officers of the Association, with the President elect, the President of the past year, and twelve other members, do constitute the Council of the Association. That twelve ordinary members shall be appointed by the annual meeting, three of such members retiring by rotation each year in the order of rotation, and be not eligible for re-election."

Dr. *Duncan*—I shall move at the next annual meeting that Rule IV., as to the election of ordinary members, be altered in this way—

"That the election of members take place by ballot at the annual meeting, by means of papers, upon which shall be printed (written if the nomination takes place on the day of the meeting) the name of the candidate, upon which each member voting shall make a mark, intimating his wish either for the admission or rejection of each candidate—a majority of two-thirds of those voting being required for the election of each candidate."

Dr. Shaw—I beg to give notice of a motion to inquire next year into the general mode of conducting the Journal.

Dr. Christie moved the resolution of which he had given notice,— "That in Rule IX., after the words, 'at each annual meeting,' and in place of the last sentence, it should be, 'and that in the election of President, the candidate be proposed and seconded at such meeting, balloting papers being used in the election.'"

The motion was seconded by *Dr. Williams*.

Dr. Davey rose to move the resolution of which he had given notice, which might be accepted or not, as an amendment on the last proposition. Having a regard for the welfare of the Association, and for the peace of their annual meetings, he had a resolution to put before them which was directly opposed to the principle which had been, although against the law, acted upon year by year. For the last eight or nine years he had perceived with pain that there had not been that strict relationship between the acts of the council on the one hand and those of the mass of members on the other which was so desirable. He had observed that upon many occasions the council had taken too much upon themselves, and that the members had been used as means to an end. This was a state of things which ought not to exist. If the members had due regard for the welfare of the Association, they would take care to make it distinctly representative. They were of equal position, having privileges very similar to each other, and therefore he desired to see this Association essentially democratic. If a manhood suffrage was desirable anywhere, it certainly was in an association like this, where they were all on an equality. Year by year they had had a tumult in the election of President. One name having been mentioned for the office, others were immediately proposed, and this placed both the council and members in a very awkward position. They would remember that at the last annual meeting, *Dr. Monro* expressed an opinion that the nomination of a member for the presidency was incompatible with the ballot, and he (*Dr. Davey*) believed it was the general opinion that, according to Rule IX., the voting ought to be by balloting papers, without any name being previously mentioned. He thought that no name ought to be proposed or seconded, or given by the council for the acceptance of the society, and he begged, therefore, to move that in future no gentleman be nominated or recommended by the council for the office of President; but the election to the office should be purely by the BALLOT.

Dr. Monro did not agree with all that *Dr. Davey* had said, and did not think there had been that amount of wrangling which his words would seem to imply.

Dr. Wood seconded the amendment, believing the principle was a correct one. There seemed to him great objection to the practice of bringing forward the name of one gentleman, and leaving it open for a member to propose another—thus pitting one against the other. If they used the ballot, they should have the full benefit of it, and this they did not do at present. He thought, therefore, they could not do wrong in adopting the practice of the College of Physicians, and proceed to the election by ballot, without the names being first given.

Dr. Christie objected to the proposed alteration of the Rule, and said the usual twelve months' notice must be given before such an alteration could be made.

After some discussion, *Dr. Davey* consented to his amendment standing thus: "That the election of President be by balloting papers, as at present conducted by the Royal College of Physicians."

Dr. Manley explained that this Association was not in the same position as the College of Physicians, and that with the latter it was not unusual for the same man to be re-elected for a number of years. He thought it should be competent for the council to nominate a member for the Presidency, but did not think that speeches should be made in support of the gentlemen proposed.

Dr. Sibbald proposed that the election should be carried on as in previous years.

Dr. Manley seconded this.

Dr. Duncan thought that if the rules were revised they should be so framed as to leave no room for dispute hereafter. As far as he understood *Dr. Davey*, he would exclude the council from nominating any one, but would leave it open for the members to do so.

Dr. Davey—I would leave it to no one.

The President said that at the College of Physicians a list was sent round of the members proposed, and each one wrote a name upon a slip of paper and handed it in.

Dr. Arlidge thought that the Council should issue a list of the gentlemen eligible for the office, and that a copy should be sent round to each member some time previous to the annual meeting.

The President put *Dr. Davey's* amendment, and it was rejected.

Dr. Manley proposed, and *Dr. Mackenzie* seconded: "That any member wishing to propose a gentleman for the office of President for the ensuing year, shall send in to the Secretary, at least two months before the present meeting, the name of such gentleman, with his consent; and that the Secretary shall, in summoning the present meeting, mention all the names forwarded to him; and that the ballot shall take place on such names."

Dr. Christie—I have not the slightest objection to withdraw my amendment in favour of that; it is just what I wanted (hear).

Dr. Tuke said it was now perfectly competent for any gentleman to send in a name to the Council—as was done by *Dr. Christie* six weeks ago—without any fresh rule being made.

Dr. Christie—The object is to have the names on the agenda.

Dr. Tuke—We cannot do that unless we have their permission.

Dr. Arlidge thought it would be sufficient if the names were given in the previous number of the Journal.

The President said the whole question involved two principles—first, the representative faculty of the council, and secondly the general election of members individually, which latter would annihilate the office of the council on this point. He would not say which way his own feelings went, but the question really was whether or not they should have the intervention of the council in the election of President.

Dr. Manley's proposition was then put to the meeting.

Nine voted for it. On the contrary, thirteen hands were held up. Consequently it was declared lost.

The original resolution, as moved by *Dr. Christie*, with reference to the alteration of Rule IX., was then put, and was carried by eight to five.

Dr. Maudsley said he would withdraw the motion of which he had given notice, with regard to lengthening the term of the President's office, as the general opinion of the members seemed to be that the President should not be eligible for two or three years.

Dr. Belgrave briefly moved a resolution, of which he had given notice, that quarterly meetings of the Association be held for the purpose of scientific discussion. The only difficulty was as to the place of meeting, but probably they might meet at Bethlehem Hospital.

Dr. Rhys Williams seconded the motion. The very fact of their having met there and spent three hours in that discussion, showed the need for quarterly meetings, so that they might be brought more together and understand each other better. The question was, what should be the object of the meetings?—what should be done? If it was only to read papers, it was doubtful whether the Association would go with them, but they must leave it to the Council of the Association to say what should be done. He was not sure whether they could meet at Bethlehem, but at all events there were other places they could go to; and he seconded with pleasure the proposition that meetings should be held for scientific discussion.

Dr. Kempthorne, as a young member of the profession, cheerfully supported the proposition. There were fifteen or sixteen asylums in London, the physicians of which could easily meet for the discussion of those subjects in which they were all so deeply interested, and such meetings would no doubt be productive of a great deal of good.

Dr. Tuke proposed that the quarterly meeting be called as soon as possible, and that the members who should be then present should draw up resolutions for the conduct of such meetings, and report the result to the next annual meeting.

The President—After what I have mentioned in my address, I need scarcely say that I think that this resolution for the holding of quarterly meetings is a very good one, and it has my hearty support. I think there is little doubt but what we could obtain a room for the meetings. There must necessarily be discussion as to whether papers should be read and other matters, but at present the question simply is whether quarterly meetings shall be held for the purpose of scientific discussion.

The motion was carried unanimously, and on the proposition of *Dr. Arlidge*, it was resolved that the Council of the Association should arrange the details of the quarterly meetings.

This concluded the business of the morning-meeting.

THE AFTERNOON MEETING.

On the re-assembling of the members, *the President* called upon Professor Laycock to read his paper on "*Suggestions for the better application of Psychological Medicine to the Administration of the Law.*" (See Part I.—Original Articles.)

The learned Professor concluded his paper by moving the appointment of a Committee.

Dr. Christie seconded the proposition with great pleasure. He was quite sure that every one present had been deeply interested in the details which had been laid before them. These matters demanded strict enquiry, and the appointment of a Committee, as recommended by Professor Laycock, was the best thing they could do.

Dr. Maudsley deeply sympathised with the object in view, but would remind the meeting of the fact that the Government had already proposed to issue a Commission to enquire as to State medicine. The Committee of the Social Science Association had had an interview with the Government, and this subject of the application of psychological medicine was amongst the scientific matters which were brought before them. He did not think the Government promised to enquire into all these matters, but they said that the subject should engage their attention, and they would do what they could. *Dr. Rumsey's* scheme had been submitted to the Government, and whether they could now do anything more by a committee was doubtful.

The President thought that the subject which had been introduced by Professor Laycock was one that very properly came before the Association. It was a subject so wide that the details had been neglected; and he was of opinion that a committee would greatly assist in bringing influence to bear, if not on the Government, at all events on the Social Science Association. The paper which had just been read was one of great importance, and exhausted the subject. If this Association had a standing committee, it would at least give a moral weight to those who were at work on the subject. He considered their functions, as a society, had been lost sight of, and as he

had said in his address, he thought they were capable of doing a great deal more for the public.

Dr. Tuke said that Professor Laycock had opened up a very great subject, but he thought that the Professor had weakened his case by the last paragraph, that a committee should be appointed to investigate the causes of lunacy and crime. If restricted to crime in connection with lunacy, he should go with him most fully, but thought that they trenched on another province altogether if they entered on the question of prevention of crime. It would be well, he considered, if they had a standing committee to point out to the Government the mistakes in the law—the same as they did about the distinction between right and wrong—showing the absurdity of the law in relation to criminals. In one case a man was accused of forgery, who was suffering from organic disease of the brain. The judge, in summing up, said it was useless to convict him as a lunatic, for if they did he would have to be confined for life, while otherwise he should sentence him to a short term of imprisonment. The jury, however, considerably acquitted the man, without technically declaring that he was insane. That eminent lawyer, Baron Bramwell, had said it was impossible that homicidal mania should escape with impunity. Psychologists did not say that it should, but they asked that a person thus afflicted should be treated as an object of disease, as Dr. Laycock had pointed out. To a sane man nothing was more terrible than confining him for the rest of his life as a lunatic criminal, and he might instance the case of Townley, who a few years ago committed suicide in an asylum. He thought it would be better if the attention of the committee were confined entirely to lunacy in connection with crime, and he would willingly assist Dr. Laycock in any possible way.

The President said the opinions of the association, as expressed through the committee, on that particular subject, which was their special work, would carry great weight. Dr. Rumsey was a very able man, but could have had no experience whatever on that particular subject, and therefore he (Dr. Sankey) was sure that he would hail with pleasure the appointment of a committee of their body to assist him in the work.

Dr. Tuke was sure the meeting would be very pleased to hear Mr. Hume Williams, an eminent member of the bar, now present as a visitor. Mr. Williams had written an able work on the subject of medical jurisprudence, and was well calculated, from his legal and medical knowledge, to discuss the question (hear, hear).

Mr. Williams, in responding to the call, said the paper which had been read invited to considerations of the utmost importance. He was glad to perceive that the shortcomings of the law in reference to psychological questions were daily becoming more impressed on the minds of those most competent to deal with them. No doubt the administration of justice required the closest approximation to a fixed standard for judicial guidance—a test practically, if not absolutely

true. The knowledge of right and wrong might be accepted as so far an evidence of mental capacity, but such should be distinguished from moral responsibility, inasmuch as before physicians could affirm the latter to exist, and therein rested the fact of criminality, it was necessary to determine whether the accused possessed the capacity of acting according to that knowledge. The impulse to commit crime was in many instances the chief, if not characteristic, indication of mental disease, and in the abeyance of other symptoms frequently led to subtle inquiries, in which, according to their experience, men of eminence occasionally expressed conflicting opinions. In such cases, what was to guide the direction to the jury unless a standard, at least theoretically true, be adopted. Some years since, in a correspondence with an eminent judge on this most interesting question, the conclusion arrived at was, that in the absence of other evidence, the knowledge of right and wrong as to a particular act should be the test of responsibility for that act. The admission of "other evidence" must always render such inquiries questions of medicine rather than of law, wherein legal dicta, facts, and medical opinions are submitted to the finding of a jury. It is important that insanity be regarded as essentially a medical inquiry. The various practical tests which explained the actions of ordinary life, failed when applied to mental disease. Motiveless crime was a deeply interesting study. In some cases motives were only discoverable by the medical expert. In others, motives, apparently present, were entirely out of proportion, so to speak, with the character of the crime and the knowledge of its consequences. The recent case of the murder at Dover was an illustration. A porter in the employment of the railway company was reprimanded for firing at a target in the station yard. He was insolent in his reply. The inspector and station master both spoke to him. They bid him retire for ten minutes to consider his apology. He occupied the time so allowed in loading a gun, with which he shot the station master through the head. He made no attempt to escape. On his trial the plea of insanity was raised, without other grounds than the insufficient motives for so foul a crime. No medical witnesses of experience gave evidence. In all cases in which the plea is intended to be raised notice should be given to the Crown, and experts, at the expense of the State, be ordered to examine and report on the condition of the accused. In many cases there had been a miscarriage of justice from such a want. Expressions of opinion as to the propriety of such a course, coming from so distinguished a body, could not fail to command respect. The plea of insanity was one too frequently abused in its adoption, and sought to be supported by physicians without any special knowledge or means of observing mental maladies, in the absence of which Mr. Williams considered their evidence as worse than useless. Much practical good had followed on the discussions of the association. Some years since the relations of insanity and crime were closely investigated. Reformatory schools, rather than criminal prisons, were the

result. These schools had, by means of physical training and moral culture, as well as by disassociating young from older criminals, been the means of reclaiming many juvenile offenders, and restoring them to society as useful members. In similar directions, as indicated in the paper which had been read, the influence of the Society might with advantage be exercised, and no doubt equal good would follow. The present state of the law, where weakness of mind and incapacity to manage affairs existed, not amounting to insanity, was a subject well worthy the consideration of the Society. Whether we might not with advantage follow the example of the Roman law, and, as Lord Thurlow long since suggested in certain cases, appoint a curator, was a question daily assuming importance. With such a provision, what different results might have followed in the Wyndham and other cases, with which all present were familiar. Mr. Williams concluded by expressing his sense of the honour and privilege of being permitted to take part in a discussion with so many whose writings and labours in the cause of mental science had rendered them deservedly distinguished.

Dr. Laycock replied to some of the remarks which had been made. With reference to what his excellent friend the Secretary had stated, he thought he had misapprehended the scope of his paper. It was not that enquiry should be made by them—he believed that would be futile—but by Government, who should, by Royal Commission, or otherwise, seek to obtain all the knowledge they possibly could on these subjects, with a view to the prevention of lunacy and crime. Chief Justice Hale spoke truly, though obscurely, when he referred to the “indivisible line,” and there was no line traceable between sanity and insanity if they considered it from a purely scientific point of view. But by a Government enquiry they would better understand the intimate relation between lunacy, imbecility, vice, and crime, and could ascertain from facts whether a person was capable of conducting himself as society required. He was glad to hear such a distinguished member of the bar as Mr. Williams endorse the fact that experts were required. The difficulty was that those who had the administration of the law would not admit their incapacity to deal with this question. As he had said in his paper, he was astonished that a distinguished Lord Chancellor should express his opinion that insanity was merely a question of common sense for the jury. Facts were against such an assertion, and he thought they ought to be prepared to give their opinion to Government, and not offer it to them (hear, hear). Then as to what Dr. Maudsley had said as to the question being discussed by the Social Science Association, with all respect for Dr. Rumsey, he must say that the mixing up of the questions of science and medicine with sewerage and engineering was quite incompatible. Thirty years ago he wrote on the connection between poverty and moral degradation, but there was no reason why the two questions should be brought together. The Professor referred to the law of hereditary transmis-

sion, and said that this question of mental science must come before the legislature. The great fault he found with courts of law was that they did not apply to cases of insanity those principles which were the perfection of reason and of common sense; and not doing so, they had to refer to expediency. But was this right? Was it right that a man should be condemned or acquitted because it was expedient so to do, rather than that he should be confined as a lunatic? Great provocation was pleaded in some cases, and the judge and jury sympathising, the man was let off with three months' imprisonment, although others received seven years; and surely they might admit extenuating circumstances in cases of infirmity of temper of mind, and they might ask a jury to bring in a verdict of guilty, with extenuating circumstances. But the state of the law was such that great injustice and disorder, and consequent injury to society, was done. The case at Dover was decidedly a doubtful one. If in such a case insanity was pleaded, he should place it first before a grand jury, and if they considered the plea valid he would have the culprit sent back to prison for investigation by experts. This was done on the continent, and would not be the means of preventing justice being done ultimately. He thought therefore a committee should be appointed to enquire into these questions of medical and mental science.

The President—The committee might separate details, and I think it would be better to move step by step. Your object is to move the Government?

Professor Laycock—Precisely; I would leave to the committee the form in which they would move the Government.

The resolution was then put and carried unanimously. The committee appointed consisted of Professor Laycock, Dr. Rhys Williams, Dr. Christie, Dr. Sankey, Dr. Robertson, and Dr. Maudsley, with power to add to their number.

Dr. Kirkman was sorry to have to bring before the members a matter of pounds, shillings, and pence, but knew that anything which had reference to the superintendents of asylums must be interesting to them. He greatly regretted the absence of Dr. Robertson (who was unable to attend the afternoon meeting) because, while agreeing with most that he had said in his address, there were some things he was disposed to controvert. At that late hour, however, he would simply read the resolution:—"In the event of any alteration or amendment in the existing superannuation clause in the Lunatic Asylums Amendment Act, it is desirable that the pensions granted to the Medical Officers of Asylums, after fifteen years' service, should be made compulsory to a certain amount; and that discretionary power should be retained by the Visitors to take into their consideration the length of service, value of lodgings, rations, or other allowances enjoyed by the person superannuated in their estimate of addition to be made beyond the defined and certain amount." The Clerk of the Peace for the County of Suffolk had said to him "You will find that the magis-

trates will not give up their controlling power," but it was just that which the superintendents of asylums objected to. He had for forty years been the superintendent of a county asylum, and was quite sure if he retired to-morrow that his feelings would be very much hurt at what would transpire at their county sessions. For himself he should not be satisfied with anything less than a compulsory clause. One of the Commissioners in Lunacy had expressed to him the opinion that there should be compulsory powers. He had read the resolution to the superintendent of one asylum, who was of opinion that the pension should be made compulsory after twenty years' service; he (Dr. Kirkman) thought it should be fifteen, but would not object to the alteration to twenty, nor contend for the amount of two-thirds of the salary. But what he contended was that what they had they should have by right, and not let it be said, "Can no more work be got out of him?" or "Won't £50 less do?" He wanted to avoid those designing, quibbling discussions at petty sessional meetings.

Dr. Maudsley said that *Dr. Robertson* had taken a great deal of trouble in this matter, and after seeing the Commissioners it was felt that they could not get their help in asking for a compulsory clause, and therefore they were obliged to give it up. The Commissioners had plainly told them that they could not assist the superintendents if they insisted on a compulsory enactment, and without their help it seemed impossible to get what was desired.

Dr. Sibbald might mention what was perhaps not generally known that the superintendents of district asylums in Scotland had no superannuation allowance, either optional or compulsory. If he was a medical officer of an asylum for twenty-five or even forty years, boards in Scotland had no legal power to make a grant, which was only given to public asylums, such as Edinburgh and Glasgow, which were incorporated by royal charter, while district asylums did not come under that denomination. If they could include in the resolution the superintendents of the district asylums in Scotland he should be glad, but he doubted whether the present was just the time to press the claims of the superintendents of asylums.

Dr. Kirkman said that by the Financial Bill which had just passed the House of Commons, and would doubtless become law next session, they were thrown upon Boards of Guardians, and that was not at all a pleasant position for medical men to stand in.

The President thought the pension should be made compulsory. Superintendents of asylums having calculated upon a pension, it was not right that they should be disappointed in the end.

Dr. Christie considered it would be far better to abolish the whole system of pensions, and pay them proportionately. He thought that fifteen years was too short a time for a compulsory pension, and they could not expect men of experience in the House of Commons to give them a pension of two-thirds at that time. The largest sum that he knew of was granted to his predecessor, and he fully believed that if

nothing had been said about pension, the salary would have been £150 a year more. He thought that the period of service should be altered from fifteen to twenty years, and that ill-health and other circumstances should be taken into account.

Dr. Kirkman—I am quite willing to alter it to twenty years.

Professor Laycock thought that medical officers should be placed on the same footing, as regarded pensions, as officers of the civil service.

The President said it was high time that something was done.

Dr. Christie was of opinion that pensions should be left to committees of asylums, instead of being got through magistrates in quarter sessions.

It was ultimately resolved, on the motion of *Dr. Maudsley*, who deprecated the hasty adoption of *Dr. Kirkman's* resolution, that a committee should be appointed to consider the whole question.

Dr. Maudsley proposed a vote of thanks to the President and Fellows of the College for again kindly granting them the use of that room for their annual meeting.

Dr. Paul seconded the motion, which was carried unanimously.

On the proposition of *Dr. Williams*, seconded by *Dr. Sibbald*, a vote of thanks was accorded to the President for his conduct in the chair, and the proceedings terminated.

ANNUAL DINNER OF THE ASSOCIATION.

The annual dinner was held in the evening at Willis's Rooms, *Dr. SANKEY*, President, in the chair. There were present—*Mr. R. Quain*, *Professor Laycock*, *Dr. Richardson, F.R.S.*, *Hume Williams, Esq.*, and a large attendance of members.

The following Memorandum, by Dr. Stewart, of Belfast, was intended to have been read at the Annual Meeting of the Association, but was unfortunately delayed in transmission by the post:—

MEMORANDUM ON THE SUPERANNUATION OF OFFICERS, &C., IN THE DISTRICT ASYLUMS FOR THE INSANE IN IRELAND.

At the annual meeting of the Medico-Psychological Association for 1867, some discussion ensued in reference to the superannuation question as it affected the officials in the District Asylums for the Insane in Ireland. *Mr. Blake, M.P.*, honorary member of the association, was present on that occasion, and in the course of his remarks stated that a more liberal clause should have been introduced in the Act of 1867, viz., "30 and 31 Vic., c. 118, to provide for the appointment of the officers and servants of district lunatic asylums in Ireland;" and further, that "he would be very happy to do anything in his power for

that object." Now it so happens that during the late session another Act has been passed connected with the district lunatic asylums in Ireland, having reference to the auditing the accounts of those institutions, and during the progress of which it was confidently hoped that Mr. Blake—who, to a certain extent, has been looked upon as the "Shaftesbury" friend of the Irish asylums, as the distinguished nobleman of that name has proved himself to be of the English county asylums and their responsible officers—would have taken so favourable an opportunity of having the grievous injustice removed under which the Irish medical superintendents labour, and who consider the same as making a most invidious distinction between them and their brethren in England and Scotland. Even had the subject been mooted in the House of Commons upon the above very appropriate occasion it would have been satisfactory, as affording an evidence so far that the only fair and reasonable claims of the Irish superintendents were not altogether forgotten or overlooked by their Parliamentary friends. The way in which the superannuation question stands between the Irish medical superintendents and their brethren elsewhere is simply this: In Ireland the superintendents, &c., of the district asylums have been placed under the operations of the "Civil Service Superannuation Act," which allows, as the maximum, three-fourths of the salary and allowances after a service of *forty* years, and being *sixty* years of age. In England the same retiring allowance can be claimed after *fifteen* years' service, and being *fifty* years of age. Formerly, the actual service required in England was *twenty* years, but through the active and ever zealous services of Lord Shaftesbury the above period was very properly reduced to fifteen years, the former being considered unreasonably long in the discharge of duties confessedly allowed to be of the most constantly anxious and harassing nature. The Irish superintendents consider their case a still harder one, inasmuch as they each and all have imposed on them duties which are unknown in England and Scotland, they having to be accountable for the entire fiscal business of their respective institutions, and, too, to act as their secretaries; in fact, the *whole* weight and responsibility of the conduct of their institutions, even in the minutest details, devolve upon their shoulders. And yet this is the encouragement which is held out to them for a faithful performance thereof—the requirement of "the pound of flesh" with a vengeance—viz., *forty* years' service, and to have arrived at the age of *sixty* years, instead of *fifteen* years and *fifty* years, respectively, as in England and Scotland.

Should Mr. Blake, M.P., be present at the annual meeting of the 4th of August, 1868, of the "Medico-Psychological Association," his attention to the above statement is respectfully requested, and under any circumstances the Irish medical superintendents feel assured they have the strong sympathy of the association with them, and that it will not be wanting in affording to them its influence to the utmost in having their most reasonable claims for a more liberal superannuation awarded as a simple matter of common justice.

Before closing these few remarks it should not be forgotten to be stated that on two occasions, within the last ten or twelve years, the Irish Government had introduced a superannuation clause in Bills connected with the district lunatic asylums, which provided that after *fifteen years'* service three-fourths of salary and allowances might be granted in the event of infirmity, physical or mental, preventing the due discharge of the duties of the officials of those institutions, and the full salary and allowances after twenty years. This clause, be it remembered, was agreed to without any objection whatever at the time, but owing to other matters in the Bills in question being objectionable they were withdrawn. Subsequently a Bill was brought in by the late Sir R. Fergusson, Bart., M.P., in 1856, which confined itself to the above superannuation alone, and which passed through committee in the House of Commons without any opposition whatever; but at its *third* reading an entire change was made in it by substituting the provisions of the Civil Service Superannuation Act. At the time that was supposed to be a mere *ad interim* arrangement until the next session, that one being then just expiring; and for reasons best known to the late Sir R. Fergusson, the Bill was thus suddenly changed at the last moment, and so became an Act, and has so continued to the present time.

THE LATE DR. ELLIOTSON.

THE death of Dr. Elliotson forcibly recalls the stormy debates upon the subject of animal magnetism to which his advocacy of it gave rise so many years ago. The able and dispassionate review of his life in your issue of August 8, leaves little to be desired. At the same time there are one or two allusions and statements which we should like still further to confirm and somewhat amplify, although without any direct reference to the judicious remarks the writer makes.

Now that the struggle and the main cause of it have passed away, we are able to regard the combatants with the equanimity which distance from the conflict and the dulling influence of the lapse of time inspire. We have most carefully, and without bias, gone through the discussions which took place thirty years ago and subsequently, and placing side by side these and the standard works of the present day on physiology and psychology, we have endeavoured to answer the question, Who was right? Well, our conclusion is, the latter support the correctness of the opponents of Dr. Elliotson as to *theory*; while they support, *in the main*, the correctness of Dr. Elliotson as to *fact*. These works tell us that animal magnetism is a myth; but they also tell us that the facts which appeared to establish it are, for the most part, confirmed by subsequent observation, proving certain important and highly interesting physiological and psychological laws, quite independent of animal magnetism. Dr. Elliotson was wrong; his opponents were right. Dr. Elliotson was right; his opponents were wrong. And so, as in most fierce disputes, it turns out that "both were right, and both were wrong." Unacquainted, or at least unfamiliar, as we then were with the marvellous influence of expectant attention, suggestion, monotonous sounds and movements, excito-motor and ideo-motor acts, reflex action of the brain, &c., we may, perhaps, be excused if we were too ready to explain all the phenomena of so-called animal magnetism by the easy solution of "it's all imposture." It is

certainly curious to look back now and read the unqualified denial by even eminent medical men of the genuineness of phenomena which no one now denies, but which our authorities explain on sound, although enlarged, physiological principles. Even in the case of the Okeys, which so naturally suggested imposture, we find two of the sturdiest opponents of animal magnetism (as such) stating some years after, that, in their opinion, the phenomena in question might fairly be attributed to other causes than intentional imposition. Professor Laycock, while regretting that Dr. Elliotson should have been deceived as to the character of the phenomena, adds, they "were undoubtedly not feigned;" and Mr. Braid shows that the psychology of hypnotism, while lending no sanction to, but disproving, animal magnetism, "readily accounts for the result of Mr. Wakley's experiments with the Okeys." Referring to the wonderful acuteness of smell in such cases, he adds—"May not this account for the fact of Dr. Elliotson's patient, Okey, discovering the peculiar odour of patients *in articulo mortis*?" Be this as it may, however, the action of the Hospital authorities in interfering with these misplaced exhibitions in the wards of the institution was manifestly a duty, and Dr. Elliotson's resignation was but one of several inconsiderate acts which arose from his fiery, impulsive nature. Indeed, his inability to brook the slightest opposition, whether from friend or foe, was, if we mistake not, his cardinal sin—the real cause of his fall. However much he may in some instances have been illtreated by his professional brethren (and we do not deny that the shallow cry of imposture raised so indiscriminately against the phenomena of mesmerism was calculated to disgust and exasperate him), he undoubtedly condescended to retaliate in very unparliamentary language, and made the grand mistake of vituperating not only the class above referred to, but those who were disposed candidly to investigate the facts brought forward, but who could not adopt his explanations of them.

A few words on anæsthesia in connection with Dr. Elliotson and mesmerism, A passage written by Dr. Forbes in the *British and Foreign Review* on its employment in surgical operations is now of real historical interest, and the period which it marks ought not to be overlooked by any one who undertakes to write a complete history of anæsthetics. Four years before (in 1842) at a discussion of the Medico-Chirurgical Society on an operation performed without pain under the influence of mesmerism (so called), a distinguished member of the profession asserted that the fact was unworthy of the Society's consideration, because pain is a wise provision of nature, and patients are all the better for it, and recover better! In 1843 appeared Dr. Elliotson's well-known work, "Numerous Cases of Surgical Operations without Pain in the Mesmeric State." Then, after the lapse of a few years a large number of capital operations in various countries (especially in India by Dr. Esdaile) having been painlessly performed, a considerable change of opinion evidently took place, and Dr. Forbes, in his *Review* for October, 1846, thus writes:—"Indeed, we hesitate not to assert that the testimony is now of so varied and extensive a kind, so strong, and, in a certain proportion of cases, so seemingly unexceptionable, as to authorise us—nay, in honesty, to compel us—to recommend that an immediate and complete trial of the practice be made in surgical cases." But scarcely had this number of the *Review* appeared when the first operation under the influence of ether was performed in America! This was on Oct. 16, and the news reaching England on Dec. 17, its discovery was announced in the *Medical Gazette* of the 18th, under the head of "Animal Magnetism Superseded," and on the following day Liston operated for the first time upon a patient under its influence. It was soon seen that many phenomena, such as partial consciousness, calling out as if in pain, sensitiveness to slight touch, were quite consistent with perfect anæsthesia, and were not, as many had supposed when they occurred in mesmeric patients, proofs of imposture. Here, then, Dr. Elliotson and his opponents were both right and wrong—he wrong in asserting that mesmerism would be the anæsthetic ultimately adopted by the profession, but right in his belief that operations had been painlessly performed under its influence. We can but smile now at the objection, already referred to, then raised against the prevention of pain; perhaps some would think we ought rather to blush that members of our profession should on

this ground have opposed Dr. Elliotson's attempt to introduce painless operations in surgery. Perhaps the prejudice was not more singular than that of the esteemed editor of *Chelius* against the employment of ether, who wrote, "I have considerable doubt of the propriety of putting a patient into so unnatural a condition as results from inhaling ether, which seems scarcely different from severe intoxication—a state in which no surgeon would be desirous of having a patient who was about to be submitted to a serious operation." (*South's Chelius*, 1847, vol. ii. p. 1009). Recurring, however, to the main phenomena of so-called animal magnetism—the coma, rigidity, &c.—we can now see clearly enough, after the investigations and sound physiological explanations of Mr. Braid, Professor Laycock, Dr. Carpenter, Sir H. Holland, Professor Bennett, and others, that they can all be produced by certain recognised methods, alike without imposture and without animal magnetism. Once again, true facts, but false theories. We now honour Dr. Carpenter and others who dared to look the facts in the face, and instead of denying them (so easy to the dogmatist) pressed them into the service of psychology and physiology. Gradual as was the admission and the reasonable explanation of the facts in dispute, they may be said to have been generally regarded in the light they now are by the year 1853, when Dr. Carpenter, in his "Human Physiology," thus pronounced his verdict:—

"It appears to the author that the time has now come when a tolerably definite opinion may be formed regarding a large number of the phenomena commonly included under the term 'mesmerism.' Notwithstanding the exposures of various pretenders which have taken place from time to time, there remains a considerable mass of phenomena which cannot be so readily disposed of, and which appear to him to have as just a title to the attention of the scientific physiologist as that which is possessed by any other class of well-ascertained facts." Dr. Carpenter then briefly enumerates "the principal phenomena which he regards as having been veritably presented in a sufficient number of instances to entitle them to be considered as genuine and regular manifestations of the peculiar bodily and mental condition under discussion:—1. A state of complete coma or perfect insensibility. . . . In this condition severe surgical operations may be performed without any consciousness on the part of the patient. 2. A state of somnambulism or sleep-waking, which may present all the varieties of natural somnambulism from a very limited awakening of the mental powers to the state of complete double consciousness, in which the individual manifests all the ordinary powers of his mind, but remembers nothing of what has passed when restored to his natural waking state . . . characterised by the facility with which the thoughts are directed into any channel which the observer may desire by the principle of 'suggestion.' 3. A frequent phenomenon of this condition, and one which has its parallel in natural somnambulism, is a remarkable exaltation of one or more of the senses, so that the individual becomes susceptible of influences which, in his natural condition, would not be in the least perceived. 4. The muscular system may also be excited to action in unusual modes and with unusual energy. Notwithstanding the fallacy of many of the cases of cataleptic rigidity which have been publicly exhibited, the author is satisfied, from investigations privately made, of the possibility of artificially inducing this condition." Lastly, Dr. Carpenter observes that, as regards the therapeutic influence of mesmerism, the same effects may be produced by other forms of artificial somnambulism (as Braidism) by simply fixing the attention upon the part, and, even in the waking state, by confident expectant attention.

Substitute, then, "Braidism" or "hypnotism" for mesmerism or animal magnetism, and we can look back on the phenomena so prominently brought into notice thirty years ago by Dr. Elliotson, and perceive that in the heat of controversy both of the contending parties made great mistakes, and that much time would have been saved had we at once, as a profession, fearlessly investigated the reputed facts, and separated the chaff from the grain, instead of adopting something of the tone of wholesale denunciation and contempt. Let the course pursued by a few of the ornaments of our profession, at a later period, be a lesson and a guide for us in the future.—*Medical Times and Gazette*, August 29.—D. H. T.

GHEEL IN THE NORTH.

GREAT anxiety is already felt in many of the districts of Scotland at the gradually increasing number of pauper lunatics, and greater reluctance is evinced on the part of the ratepayers to increase asylum accommodation. It is strongly urged by many good authorities that the "cottage system" of treatment for harmless lunatics and idiots provides amply against any further expenditure in adding to the Royal and District Asylums. I propose, very briefly, to mention some of the objections which medical superintendents of asylums entertain against the system as it now exists, and to make suggestions for its improvement and elaboration, which, in my humble opinion, would render it more useful as a means, not only for the detention of patients, but for their cure and amelioration.

The following are the objections which most prominently present themselves to the medical-superintendent mind :—

1. *The existing supervision over patients boarded in the houses of cottagers is utterly insufficient.* If the patients in a lunatic asylum under the superintendence of a medical man of experience, aided by one or more assistant-surgeons, where a large staff of paid attendants is maintained, need the careful and constant supervision of the General Board of Lunacy, the district board, visiting committees, sheriffs, and visiting justices, how much more does it seem necessary that insane patients consigned to the care of a cottager should be supervised most jealously? At present the visitation of such patients is limited to a quarterly visit from the parochial surgeon, to a half-yearly visit from the inspector of poor, and a yearly visit from a Deputy Commissioner in Lunacy. Either the machinery of Asylums is too complicated, or the supervision of insane paupers in private dwellings is proportionately inadequate.

2. *The utmost difficulty is experienced in selecting proper patients for boarding out.* The class which is said to be best suited for such treatment is congenital idiots or hopeless imbeciles. It is well known how very difficult it is to prevent this class of persons from degenerating and lapsing into the most degraded condition, even under very favourable circumstances : how much more likely is this to occur when the lunatic is committed to the care of a guardian who reaps an absolute benefit from a board ranging between 3s. 6d. and 6s. a week?

3. *Medical superintendents experience great difficulty in procuring proper persons to act as attendants on the insane. Even under supervision, it takes months to train such a servant, and to inculcate that consideration which is due to the weaknesses of those under his or her care—how, then, is it to be expected that the poor labourer or artisan can at once be fitted to undertake the office for which experience shows special training is absolutely necessary?* These are objections which no amount of argument can dispel from the minds of those who have lived much amongst the insane, and whose care and treatment have been their special study.

These are objections to the system as it at present exists, but I believe that they might be entirely obviated were district boards authorised to take over care and supervision of all their pauper lunatics. In every district of Scotland there now exists a District Lunacy Board, and in most a district asylum has been erected, sufficient for the accommodation of the more urgent cases; still 28 per cent. of lunatics are boarded in private dwellings, subject only to the infinitesimal amount of supervision above alluded to, and in no way under the control of the district board.

The plan I would propose for the elaboration and improvement of the cottage system is as follows :—That all lunatics of the district be placed under the control of the district board, that such patients as are suited for residence in private dwellings be located in villages as nearly adjacent to the asylum as possible, and that the medical officer or officers of the asylum make regular visitations as often as the board may direct, and report the result. By this means security would be obtained against any abuse of the system. The guardians should be approved of by either a deputy commissioner or the medical superintendent of the district

asylum, and their houses should be made liable to visitation at any hour of the day or night by the latter officer, in the same manner as lunatic asylums are liable to the visitations of the Commissioners in Lunacy.

It may be said that this is constituting, to a certain extent, the medical superintendent the district inspector. Why should it not be so? The inspection of the asylum over which he has charge is already sufficiently provided for, and I think it will be admitted that, as a rule, no better judge than a man experienced in the management of lunatics in asylums could be found as to the proper treatment of lunatics in private dwellings. No doubt many minor difficulties would arise in the organising of a system such as is now proposed, but they would be small in comparison with the advantages to be derived in overcoming them.

1. The public would be guaranteed the proper care of *all* their pauper lunatics by their transference to the care of the district board.

2. A large proportion of lunatics would be provided for by the cottage system, if superintendents could assure themselves of the proper treatment of patients under such circumstances.

3. The system might be made available for the treatment of convalescent cases. I know of many instances within the last few months which would have been benefited by a change from the discipline of the asylum, could I only have assured myself by personal observation of their proper treatment during their term of convalescence.

The cottage system must sooner or later be brought more fully into play, but it will never gain the confidence of the general public, or of those physicians who have made insanity their special study, until more stringent provisions against abuse are instituted, and greater assurances are offered that patients so provided for are looked after in a manner more nearly approaching to those confined in asylums. By its elaboration all necessity for the enlargement of existing asylums would be obviated for many years to come. The machinery for carrying out the plan I have suggested already exists; and, were it adopted, it would secure a reduction of the enormous expenses to which parishes are liable for the maintenance of pauper lunatics. Better still, it would ensure partial liberty to very many who are now subjected to the more rigid discipline of the asylum.—*Objections to the Cottage System of Treatment for Lunatics as it now Exists, and Suggestions for its Improvement and Elaboration.* By DR. J. B. TUKE, Medical Superintendent, Fife and Kinross District Asylum. *Edinburgh Medical Journal*, April, 1868.

PROFESSOR BAIN'S MANUAL OF MENTAL AND MORAL SCIENCE.*

A work of 850 pages, though not of the largest octavo, is bulky; and this work is big of its size. There is an immense quantity of matter, closely packed; and the author has a defined purpose of condensation. All that is about the mind, on the author's own view, is abridgment of two previous volumes. Running the eye along the table of contents, we catch nerves, muscles, sensation, appetites, instincts, intellect, retentiveness, agreement, compound association, abstraction, experience and intuition, perception, feeling, emotion, volition, desire, belief, moral habits, liberty and necessity, ethical standard, moral faculty, history of ethical systems, history of nominalism and realism, of experience and intuition, of classifications of the mind. These are only larger headings; with the smaller headings we have 36 pages, over and above the 850 just mentioned.

We welcome a summary of philosophical history, thus accompanied by the views of the summarist. It is often difficult to read accounts of opinion, espe-

* Mental and Moral Science. A Compendium of Psychology and Ethics. By Alexander Bain, M.A. (Longmans & Co.) 1868.

cially short ones, because we do not know how to interpret the writer's terms. This is always best done, not by his definitions, but by the general run of his discussion: in like manner the portrait painter gains the features of his subject from their play in conversation, as well as from the grave face he presents when in the chair. And the parallel is tolerably close: the writer often hedges and qualifies in his formal definitions, in a manner which does not influence his subsequent use of words: the sitter formalizes and fetters his lineaments, and looks grand, or intellectual, or sentimental, according to his nature and design, after a fashion very different from his unintentional physiognomy. To know B by A's account of him, we must know A. What saith St. Augustine? says the poor priest in "Ivanhoe." What saith the devil? answers the impatient Baron; or rather what dost thou say, Sir Priest? The Baron wanted to shut out the quotation, and hear the news: we want the speaker's account of himself as well as of his Augustine, because we find the first essential to comprehension of the second. And thus we justify our preference, in so very slippery a subject as psychology, for a writer whose full explanation of himself precedes his explanation of others.

We do not, of course, enter into detailed review of the vast field over which Professor Bain takes us. He belongs to a school of philosophers which desires, and to some extent pretends, to get at the mind through the body. There is use of a word which many take to be American, but which is very old English. Milton, Hooker, and others of like authority, use it; but our earliest experience of it is in Dr. Meredith Hanmer's translation of Eusebius, &c. (1st ed., 1577; 4th, 1636). Speaking of the Nicene Creed, the historian Socrates is made to say that Eusebius "pondered with himself whether it were his part to admit that *platforme* and definition of faith." Mr. Bain is on the *sensuous* platform: this school has its aspirants and its graduates. There are those who write books which assume to have arrived at mind through the brain: Mr. Bain, with much prefix on the muscles, nerves, &c., as well as the brain, does not make any decided declaration of successful junction. He writes on the feelings as well as the thoughts; and certainly physiology is a much greater help to the treatment of the emotions than of the reason. We are put into bodily states by hope, terror, delight, &c.; the pulse shows it. But what part of our corporeal organism is affected by the difference, say, between a necessary and a contingent proposition? One man has lived in perpetual fear, another in constant tranquillity: their digestions tell their stories. Again, one man has lived a mathematical life of necessary inferences; another has cultivated history and its ever-recurring balance of probability: but no one could say which is which from their health or spirits. We cannot find fault with Mr. Bain, but quite the contrary, for his full treatment of the senses; but we think that he has been led by his system into a use of words in senses rather different from their usual philosophical senses; we mean, more different than he acknowledges.

In the very first paragraph of the book we learn that a tree or a river is an Object; a pleasure or a pain, we are told, "comes under the head of Subject." Does this mean that a pleasure *is* a subject? To philosophers in general, the perceiving mind is the *subject*, and pleasure is of and in the mind, *subjective*. Further on we learn that "Mind, as commonly happens (!), is put for the sum-total of subject experiences." Philosophers in general admit the distinction of subject and object, as two somewhat with consequences. But Mr Bain, admitting the object, shapes his words so as to bear the meaning that he has only subject-experiences without a subject. Hereby hangs a tale.

Our readers know that we have, in various matters, attempted to ferret out the concealed tendencies, if any, of theological and philosophical writers, on matters the disclosure of which might involve obloquy. We are sorry that stupid bigotry should prevent thinkers from giving us their whole counsel, and for this reason: we think the Providence of God, the supernatural of revelation, the undying mind, the practical assurance of a future state, are doctrines which suffer very much from the obstacles put in the way of profession of atheism, infidelity, and

materialism, as the opposites are usually called. We sympathise with both parties: with those who are obliged to conceal their denial of things usually admitted; and with those who, by reason of lurking doubts of their own, feel very angry when they hear of the doubts of others. But we object, as to two mischiefs of which we do not know which is the greater, both to the assault upon the freethinker, and to the freethinker's concealment of part of his system. Both are to be blamed as well as pitied.

To the second we say, keep the old word in its old meaning: let your "platform" be an intelligible "definition of faith," if you have one. To the first we recommend that they forbear to use *their* platform as a military implement, a thing to mount guns upon.

Now the *sensuous* system lies under suspicion of tending towards an attempt to deduce thought from matter, or, as has been said, to make it a secretion of the brain. It by no means follows that this theory, if established, would at all interfere with moral government or a moral Governor; some would throw away all Deity, which can be done under any system, and some would not. No one doubts that Priestley was an earnest Christian, in his own heretical way; but he was an avowed materialist, holding death of the body to be extinction, but not the less looking for the resurrection. Now mark the consequence of bigotry. Those who adopt the sensuous view are precluded from entering upon the ultimate question, think which way they may. They will not truckle to intolerance; they will not provoke it; they will not put on the appearance of desiring to stand well with it, even if their opinions would allow them to do so. They would rather have the scorn of the bigot than his approbation; and to secure that scorn, some conceal what they would otherwise avow. We hold this to be wrong, and we shall endeavour, by making ambiguities manifest, to put what difficulty we can in the way of both kinds of concealment.

There are, no doubt, those who write that they may undermine what they do not like openly to attack. These writers know that nearly all who are furtively led on a first step are led to make a second more easily than those who are allowed to know what they are about. We cannot distinguish them from those whose reasons are personal; for all work the same way. But then all are to be opposed on the same grounds, on account of this very want of distinction.

Those who conceal the attack as the most effective mode of assault may be well likened to the sow who asked for shelter until her little pigs were grown, and then, by help of her offspring, turned out the owner and kept possession. There is great objection on the part of such writers to their little pigs being prominently brought forward. We, they imply, say nothing about what they will grow to: why should you be looking forward? On this point we are of one mind with the American damsels, in the following story. There was a town in the United States where the young gentlemen went to church to get into the way of the young ladies. Tiring of this, they preferred to chat at the church-door, until their beauties came out with the rest. This the ladies would not stand: so, after the fashion of their country, they got up a society, the Anti-young-men-waiting-at-the-church-door-with ulterior-objects Association; and of course they carried their point. They cared nothing for their affairs not being very forward: they knew that little pigs of flirtation would probably become large porkers of proposal: and they took a decided course.

Now we desire that Mr. Bain should tell us in his next edition what he means by an object-world of matter, opposed to a collection of subject-experiences. He tells us that "as object-experience is in a sense mental, the only account of mind strictly admissible in scientific psychology consists in specifying three properties or functions,—Feeling, Will or Volition, and Thought or Intellect—through which all our experience, as well Objective as Subjective, is built up. This positive enumeration is what must stand for a definition." We have no objection to specifying both mind and matter by properties and attributes; we can do nothing else; why then theorise before definition into objects as real somethings, and mind as but a sum-total of experiences? It is almost necessary inference from

Mr. Bain's words that the brain is an existence, and that mind is only a manifestation of the properties of *something* which is not *mind*, because mind is but "put for the sum total of experiences." This something which cannot be mind, what is it? The brain? We do not object to Mr. Bain holding this; but it is only fair we should know. Thought as a brain-secretion is a very natural consequence of various parts of Mr. Bain's system; it is very generally suspected to be the esoteric part of the sensuous system; and it is therefore desirable that clear explanation should be given on the point. That is, if any phrases be used which raise the question; and Mr. Bain has used such phrases. When he tells us that mind is "put for the sum-total of subject experiences," and that "the brain is the principal, though not the sole, organ of the mind," he seems to tell us that the brain is the principal organ of our thoughts, and that the mind means the collection of things of which it is the organ.

Mr. Bain's notion of existence seems to be swayed by the above theory. We might write a long article on his p. 180, sec. 7; but we will take only the heading, "There is a strong tendency in the mind to ascribe separate existence to abstractions; the motive resides in the feelings, and is favoured by the operation of language." Abstractions cannot be *abstractions* without a separate *something*: that something is *existence* to all who have not depraved the word. Most philosophers will give roundness, for example, an existence (subjective) in the mind. The old logicians made their subject treat only of the *esse quod habent in animâ* of notions. And how can the operation of language favour existence of abstractions, otherwise than as a son may help the father who gave *him* existence?

This *existence* is a terrible word! Philosophers ought, we think, to see that the conflict of realism and idealism is very much one of words. When Berkeley destroyed matter, it was merely as a mediator: he substituted the direct action of the Creator upon our minds. Now, as we know absolutely *nothing* about the material substratum except that it gives us the properties we perceive, we know not, and never shall know, whether there be nothing between these properties and the First Cause, or one thing, or fifty things. The realist and the idealist will be at one as soon as they know that knowledge stops and theory begins, the moment matter—or what-not—is stripped of all its qualities. The external object is a reality to all parties, and all they have to do is, to agree that when all they know about it is removed, nothing which they know is left. Yes! they say, but what about what we cannot know? For ourselves, we end with

There is a tree, and we can see it.—
You don't know *what* it is.—So be it.

Mr. Bain is a writer of much thought and reading, combined with industry and enthusiasm. He can also be brief and perspicuous, considering his subject. He will, therefore, we hope, make his future editions as clear about the distinctive points of his own philosophy as about those of others. Let us have this sensuous system in plain language; let us know what is meant by mind being nothing but a word put for the sum-total of subject experiences. A sum-total of battles and sieges could never be accepted as a definition of an army: we ask, what is it that fights and intrenches? What is it that reasons and thinks? Mr. Bain may well answer that he does not know; we do not believe he does. But the question is, whether he thinks that he *does* know: and that it is the brain. This is the point to be made clear, no matter which way.

Psychology in some points resembles algebra. There are two chief unknown quantities, mind and matter. Neither was ever found; but many *functions* of them—we mean the mathematical sense of the word—are known, and being known, can be as safely used as if their subjects had been known. The living brain is a function of mind and matter; and we have no objection to the mathematical inversion, that the mind is a function of the *living* brain and its matter. But we cannot consent to drop the adjective. What makes the brain live? What

we call mind, of which we know nothing but manifestations. The same of matter ; but few, therefore, deny the existence of this objective somewhat. If there be any philosopher who will not admit what he knows nothing of, let him get rid of mind and matter both. *Punch* has written this philosopher's whole system of psychology :—What is mind ? No matter. What is matter ? Never mind.

Since we wrote what precedes, we have seen the report of Prof. Tyndall's remarks at the British Association. The attempts at brain-explanations of mind attract the attention of physical philosophers. This class of inquirers will not readily become unconscious of the great gulf which separates a molecular phenomenon from a *thought*. Prof. Tyndall remarks that if we could prove that love was always a spiral motion of particles from right to left, and hatred the same from left to right, we should not be a bit nearer to an explanation. He is quite right ; though undoubtedly such a fact would be worth knowing. Find it out then, if it can be found out ; but in the meantime let not an assumed theory be made a means of creating confusion between the two things of the universe which are most distinctly separated.—*Athenæum*, September 12th.

THE OPHTHALMOSCOPE IN DISEASES OF THE NERVOUS SYSTEM.

M. Bouchut has just sent to the Academy of Sciences of Paris the results of his more recent researches on the utility of the ophthalmoscope in diagnosing diseases of the cerebro-spinal system. Through the novelty and interest of the subject we are induced to sum up briefly the more striking features of this memoir. Most of the diseases of the membranes of the brain and spinal cord being accompanied by optic neuritis, neuro-retinitis, inflammation of the choroidal membrane and papillary atrophy, it can be understood how the ophthalmoscope enables us often to detect in the interior of the eye disorders of circulation, of secretion, and of nutrition, which indicate an organic disease of the cerebro-spinal system. It is through the anatomical and physiological connections of the eye with the spinal chord and brain that we may explain the law of coincidence of optic neuritis with organic injuries of the nervous system. Each time that some violent impediment to cerebral circulation is brought on by the existence of some injury of the cerebrum and of the spinal cord, papillary and retinal hyperæmia is the consequence. When it is the brain which is the seat of acute or chronic phlegmasia, the inflammation may extend to the eye by following the course of the optic nerve. On the other hand, diseases of the anterior columns of the cord may, through the anastomosis of the parts with the great sympathetic nerve in the situation of the two first dorsal pairs, produce in the eye various phenomena of papillary hyperæmia, which bring on at a subsequent period wasting of the optic nerve.

These facts show through what mechanism diseases of the nervous system stamp themselves on the eye so as to be detected by the ophthalmoscope. Other results are mentioned by the author which may be of use whilst determining the diagnosis. Thus the optic neuritis and the neuro-retinitis produced by the acute or chronic diseases of the nervous system are generally observed in both eyes ; in cases of injury of the brain, or of its membranes, optic neuritis is habitually more marked in the eye corresponding to the hemisphere which is more seriously altered ; changes of the optic nerve and retina, complicated by disorders of sensibility, intellect, and movement, invariably indicate an organic disease of the encephalon. It may be added that the alterations of the optic nerve and the retina, should not be isolated from the other symptoms of the morbid condition. When considered thus, detection of their presence gives to the diagnosis an undeniable certitude.

The author concludes by naming the diseases of the nervous system in which optic neuritis and neuro-retinitis are observed, and he draws up the following

list :—Phlebitis of the sinuses, acute or chronic meningitis, chronic encephalitis, cerebral hæmorrhage, tumours of the brain, contusion and compression of the brain, chronic hydrocephalus, abscess of the brain, acute myelitis, locomotor ataxy, essential or idiopathic contraction, and certain cases of epilepsy, of paralysis, or of neurosis, associated with an organic lesion of the nervous substance.—*The Lancet*, August 15th.

EXTRACTS FROM SIR JAMES Y. SIMPSON'S EDINBURGH
GRADUATION ADDRESS,—1868.

Importance of continuous Study.—In answer to such a question, my Colleagues and myself, when acting on former occasions as Promoters, have sometimes dwelt at length on the necessity of the physician being a student, not up to the period of his graduate examinations, but up to the end of his professional life—provided he did not chose to drop behind, and like a laggard, fall into the rear of his competitors in practice. But I do not care to dwell on this subject on the present occasion. Let me merely say—he is in truth not a fully equipped physician who is not intimate with the records of physic, who has not made himself familiar—personally familiar as it were—through their works and writings with the great leading medical spirits of the past. Besides, medicine is, in almost all its branches, a rapidly changing and progressive science, and to keep abreast of the rising tide of speculation and information, the constant study of the current literature of the profession is also required. Take one remark as a simple proof. In this University there is not used at the present day, in any department of medicine, a text-book which was employed when I was a student. The whole science and art of physic have so much altered and extended within that brief time, that our text-books have everywhere and in every branch been correspondingly changed. Yet how different is it with the more exact departments of pure and mathematical science. There is employed, I believe, in this, and in most other European Universities, as a text book on geometry, one that was written by a native of Africa above 2000 years ago. Of course I refer to the *Elements of Euclid of Alexandria*. His treatise still remains unparalleled in value. Yet how little should we now esteem and follow a text-book on physic or surgery compiled twenty centuries ago by an Egyptian medicinar?

The Unwritten Books to be mastered.—In medicine, as in several other pursuits, there are to be studied the written books of art, but still more the unwritten books of nature. When a distinguished American pupil was introduced to John Hunter, with the view of specially devoting himself to the study of anatomy under that great master, "What books," it was asked, "ought to be read?" Forthwith leading his pupil into the dissecting-room. Mr. Hunter significantly pointed to several bodies laid on the tables, and added, "These are the books which you must learn under my direction; the others are fit for little." John Hunter considered the books of nature, not the books of art, to be the chief volumes from which the complete acquisition of anatomical knowledge was to be acquired. In exactly the same way the acquisition by you of a complete and perfect knowledge of human diseases and their treatment is only to be obtained by ardently studying and mentally dissecting them, as it were, in all their manifold resemblances and differences, upon the persons of the sick themselves. To you your diseased fellow-men are henceforth to be your great volumes of study; guided in doing so by whatever you can read of highest authority regarding the maladies you are for the time being specially observing; but guided more particularly by your own close, earnest, searching observation of all their phenomena, and of all their diversified transformations and changes.

Thinking. Doing. Feeling.—In some professions and occupations, man's principal duty is to think; in others, his principal duty is to do. The practice of physic and surgery calls for the constant and resolute exercise of both qualities—

of thought alike and of action. It is, however, the part of the medical practitioner, not only to be ready to think and act for the relief and cure of his patients, but also to feel for them in their sorrow and suffering. An unsympathising physician is a physician bereft of one of the most potent agencies of treatment and cure. He knows not, and practises not, the whole extent of his art, when he recklessly neglects and eschews the marvellous influence of mind over body. For sometimes kindly and cheering words or looks from the physician are to the patient of more real worth than all his physic.* They secure the sick man's confidence and gratitude; they rouse his hopes and courage; and they even intensify the good effects of the physician's more direct therapeutic measures. Yes—let all of you cultivate to the uttermost the steady manliness of hand and head which our profession so urgently demands; but do not despise that gentle womanliness of heart which the sick, in their depression and pain, so often look for, and long for, and profit by. Be to every sick man his beloved, as well as his trusted physician.

Responsibilities of Medical Practice.—The grave and profound responsibilities of medical practice are in themselves enough—were there no other incitements—to call upon you earnestly and constantly to increase, and widen, and extend your professional knowledge by all the possible means which lie within your individual powers. For you go forth to battle ever with disease and death in and over the persons of your sick fellow-men. See to it then that your weapons and armour are always as sharp and bright as your abilities can possibly make them; and beware that your hands are kept deft and dexterous in the use of them. In dark and dangerous cases of disease, and particularly of acute disease, as honourable and conscientious physicians—answerable, as far as medical knowledge can go, for the life of your trusting brother-man—your anxiety will sometimes become intensified to the most painful degree. Under such circumstances, "I feel," said Dr. Bard, "as if I had a giant by the throat, and must fight him for very life." It is not reputation or profit that you then wrestle and yearn for, but victory. The conquests which you may thus make will gain you the warm esteem and gratitude of most patients—not, invariably, of all. But be not cast down, or turned aside for a single moment from your good and humane work, if such a result do not follow. The lion from whose swollen paw Androcles drew forth the festering thorn spared the life of his former forest friend and physician, when he was sent in—whetted with hunger—to devour him in the Roman circus. There was a depth of gratitude, however, in the heart of the noble brute, that you will not always find in the hearts of your human patients.—*Edinburgh Medical Journal, September.*

CORRESPONDENCE.

PEARSE VERSUS PEARSE AND ANOTHER.

To the Editors of the Journal of Mental Science.

GENTLEMEN,—

The case of "*Pearse v. Pearse and Another*," a short notice of which you may have seen in the journals, gives me an opportunity of calling your attention to some points in it of much interest—as I conceive—to medical men. The facts simply stated are these, viz. :—A gentleman, doing a large and lucrative practice as a solicitor, is, in 1849, married to the lady of his choice. After an experience of some years, they—i.e., the husband and wife—decide on a separation. The preliminaries are gone into very carefully, provisions are made to suit the circumstances of the case, and the long contemplated separation takes place.

*Sunt verba et voces, quibus hunc lenire dolorem
Possis, et magnam morbi deponere partem.

Released from much and pressing anxiety thereby, he (the late Mr. Pearse) determines to make his will, and so to put his affairs in that good order calculated to avoid discomfort and litigation in the time to come. The will is made, and the wife finds herself, in due course, and on the death of her husband, in 1862, very badly off. To the children (two in number) is left the bulk of the property. Now the "will" bears date April, 1859; it had, therefore, been in existence three years before the death of the testator. In the autumn of 1860 he has an attack of *acute mania*. At this time he was on a visit to friends in the neighbourhood of this city. I attended him, with the late Mr. Powell and Mr. Salmon, of Thornbury. After a time he was admitted at Northwood's, where he remained under my care for some seven months. He was discharged as "*recovered*" in the spring of 1861. After a brief sojourn on the continent, he resumed his professional labours, and continued very busily engaged therewith, until the following July, when his mind again gave way, and he was placed at the Munster Asylum, near London. Here he died in March, 1862, from *mania*, complicated, it is said, with the peculiar "*general paralysis*" which occurs to the insane. The death of this gentleman is the signal for discord. His widow seeks to prove the will invalid on the ground of the insanity of her late husband. The plaintiff affirmed that the mental unsoundness dated back to a period anterior to that of the will made in 1859. She sought to convince Sir James Wilde that the late Mr. Pearse had been mad from even the very day of his marriage in May, 1849; that he had continued insane through his married life, that he was of unsound mind both before and after the will was made; and that, in fact, the state of mind of her late husband was in the autumn of 1860, when he became my patient, but a continuation, or it may be a mere temporary aggravation, of that same malady from which he had for something like twelve years suffered. Now, it is to the manner in which it was sought to establish the foregoing points that I desire to draw your attention. If I mistake not, we shall find in that which is to follow two or three highly important questions involved—questions which affect us not only as pathologists and as psychologists, but as "*medico-politicians*," if I may be permitted to use a word somewhat outside the ordinary parlance. In this case, then, of "*Pearse v. Pearse*," we have repeated, to our professional shame, the old dodge of making sides to questions of medical science. The plaintiff and the defendants brought together—the first for herself, and the second for themselves, a posse of medical men, each one of whom was, it is to be assumed, engaged for a money consideration to twist and torture his individual experience and knowledge into whatsoever should seem favourable, not to the truth, but to his employer or employers. I was one of this "*posse*," but happening to be among those witnesses subpoenaed who were not called on for evidence, the opportunity of proving myself no partisan was lost.

I apprehend there is no one who is prepared to deny the desirability of discontinuing this old and crafty style of importing the medical element into inquiries like the one under our consideration. I take it we are assured that in the interests of *truth*, in so far as *medico-LEGAL MATTERS* are concerned, it would be well to accept another and a really frank (ingenuous) method of getting at the results of medical learning, or at the conclusions of its best professors. A jury composed of medical men is the only kind of tribunal competent to decide medico-legal questions. In a jury so constituted, the *medical chasms* which now so disturb our professional quiet, and bring no small amount of discredit on our own noble calling, would disappear, and be duly approximated or bridged over in an easy, graceful, and truthful manner. Let me add here, that in 1856 my paper on "*MEDICAL EVIDENCE*," read before the Bath and Bristol Branch of the British Medical Association, advocated these same views. Since 1856 to this present time such "*views*" have been gaining much *ground*. The pamphlet just now published on "*STATE MEDICINE*," by Dr. Rumsey, will doubtless strengthen the good cause, and facilitate the adoption of *Medical Arbitrations* in our law courts, and so help to

"Poise the cause in Justice's equal scales,
Whose beam stands sure, whose rightful cause prevails."

The plaintiff in this case sought, then, to prove that her husband was insane in 1849, when the marriage took place; and that the most positive indications of madness continued day by day through the succeeding years, up to and beyond the time when the fatal will was made.

Now you will bear in mind that Mr. Pearse was, during the whole of this same period, actively engaged in a large and laborious practice as a solicitor. It was shown on the most undoubted evidence that all he then did was well done; that cases undertaken by him, cases even of much difficulty, were excellently well conducted throughout. Law business of various kinds was passing uninterruptedly through his hands. It was given in evidence that at all times, and under every variety of circumstances, Mr. Pearse was observed to command the clearest intellect, and to exercise the highest legal capacities in the interests of his many clients. A question of the highest importance to psychologists is hereby raised. Are the two sets of facts compatible the one with the other? Can a man be at once insane, and occupy himself, day by day, as the testator did? It has been said that Mr. Pearse was sane to his clients and personal friends, but insane in his conduct towards his wife and in his domestic relations. *Is this ever possible?* If I am asked to give a categorical answer to this query—and I am permitted at the same time to allow for some amount of colouring to the picture—it must be “Yes;” but if I am asked to say whether or not the late Mr. Pearse was, in my judgment, afflicted with this very exceptional form of cerebro-mental disorder, I feel bound to reply NO. To those not practically informed in lunacy matters, and unaccustomed to hold much intercourse with the insane, my *yes* may seem strange and out of place; but the position taken is undoubtedly true to nature, and in strict harmony with the laws of Pathology. *Variableness* may very rightly be held to be characteristic of mental derangement. I have elsewhere written—“There is no fact better known to those who have the care of the insane than that one which involves the great and ever recurring changes of thought and feeling and conduct to which such patients are subject. No lunatic exhibits from even day to day the same degree or even kind of mental disorder or irregularity; he has his variations of temper the same as every sane man or woman. Moreover, the insane enjoy very commonly ‘lucid intervals’ of longer or shorter duration. Some patients will recover and remain well and *sane* for, it may be, one, or two, or three days, or months, and afterwards relapse into complete and raging madness. Such alternate states of sanity and insanity continue, and with a surprising regularity, not unfrequently through a long life.” Moreover, there is no PSYCHOLOGIST but who must confess that a person may be in point of fact mad, and yet retain the power to conceal, under some circumstances, the indications of the disorder which afflicts him. The *subjective* and *objective* conditions of the patient may be said to be, in such a case, in a state very like *antagonism*. True such *antagonism* is not permanent, the balance of the opposing cerebral forces is ere long realised, when the insanity is made plain to the dullest of senses. Regarded from a medico-legal point of view, the foregoing fact is of the first importance. What explanation, let me ask, can be offered of it? What is taught in the schools to this time of the physiology of the brain, and of the uses of its several parts, will not go far towards enlightening us. But if we open the pages of Gall and Spurzheim, or look to the writings of the late Dr. Andrew Combe, or of George Combe, we shall there find the seeming mystery solved. Bear in mind, no question of mental science can receive anything like a complete and satisfactory solution apart from *Phrenology*. The discoveries of Gall and Spurzheim are at the root or starting point of mental philosophy. These constitute the basis on which the science of mind must rest. From the materialism of the late Sir William Lawrence, the materialism which shocked “Abernethy” so terribly, and startled the *élite* of the College of Surgeons so keenly, and which some fifty odd years since frightened the very TOWN out of a large share of its propriety, we have passed on to additional and higher lights. From the “new” doctrine (so mis-called) which teaches the duality of the brain (mind) we are advancing,

though at a late hour, and by a slow progress. However, not a few have already come to admit that the brain is, in fact, more than *dual*, that it is a congeries of organs, each one of which performs an especial function in the mental economy. It is essential to remember that the two sides (hemispheres) of the brain may or may not be in the same state or degree of subjective vitality; and what is true of the hemispheres is true also of the many organs or parts entering into the composition of either of them. Moreover, this degree of vitality of the whole brain, or of either hemisphere, or of the several parts (organs) of each hemisphere, will depend to a very great extent on the surrounding circumstances of the patient through any given time. Further even than this, the *morbid sensibility* of the grey neurine which constitutes the very essence of madness—being, in point of fact, its proximate cause—(whatever other and morbid conditions may underlie and complicate it) will not unfrequently, in certain patients, occur in paroxysms, like neuralgia or hooping cough, or epilepsy, and so on. Therefore, and on this ground alone, can we account for the “variableness” observed among the insane, or what is the same thing—for the differing degrees of normal will or self control exercised by those mentally afflicted. I may add here that my reasons for not thinking that Mr. Pearse ever suffered from either concealed or *paroxysmal mania*, or from any other form of cerebro-mental disease, before he came under my care in the autumn of 1860, were gathered from the general evidence.

It remains for me to consider the evidence given by Dr. Guy and Dr. Diamond in this case of “*Pearse v. Pearse and Another.*” Other medical gentlemen than these named appeared as witnesses for and against the plaintiff; but it is sufficient for my purpose to confine my remarks within something like a limit. You will remember that I have stated that Mr. Pearse became my patient at Northwoods, in the autumn of 1860, and that he recovered in the spring of 1861. Bear in mind also that his restoration was temporary only; and that on becoming again insane in July, 1861, he was sent to the Munster Asylum, where he remained under treatment eight months, and died in March, 1862.

The *post mortem* appearances were, in the main, partial thickening of the arachnoid, with effusion between it and the pia mater; this latter membrane I understood to have been found adherent, in parts, to the surface of the convolutions. Portions of the cerebral substance were found discoloured and softened; the skull cap was seen thickened by ossific deposit, but the space or surface so changed from its natural character was limited. Now, here we get to the very pith of the matter. On these *post mortem* appearances the utmost reliance was placed. It was hoped to satisfy *Sir James Wilde* that these softenings and deposits were the result of long-standing cerebro-mental disease. Such morbid changes in the bone, the membranes of the brain, and in the cerebral substance, to say nothing of the effusion, it was sought to prove were in perfect keeping with the assumed personal history of Mr. Pearse at the time of his marriage, and subsequently, during his married life, to the time when the separation took place, and the before-mentioned will was made. If the morbid appearances named were found in patients whose insanity had been of, say five or six or eight years standing, then was it to be assumed that the pranks and strange conduct attributed to the testator anterior to 1859 (the date of the will), were so many signs or symptoms of madness—then indeed it may have been conceded to the plaintiff that such *signs* and such *appearances* stood in relation to each other as cause and effect. Now it was here that the medical evidence faltered. Dr. Guy, in his examination in chief, stated over and over again, and in many forms of words, that the appearances, *post mortem*, were not at all likely to be of recent occurrence; were hardly compatible with a disease which dated only from the autumn of 1860, and so on. Such appearances, he insisted, were the growth of many and long years, and not only of eighteen or twenty months, or two years. He laid great stress upon the change in the organic condition of the cranial bone, and this satisfied him, he said, of the long existence of the mental malady, of which it was (he said) in part the cause. But when pressed by the calm and

judicious interrogatories of *Sir J. Wilde* in his cross examination, Dr. Guy slowly, yet surely, abandoned the strong points in his evidence, and after a time came completely round to the truth, *i.e.*, he was led, after a certain amount of pathological skirmishing, to this confession, or conclusion, *viz.*, that the date of the commencement of the morbid appearances was uncertain, and that those named, including even the hypertrophied portion of the bone, may have been of comparatively recent date.

In a word, Dr. Guy confessed to be unable to fix a *minimum* of time for the duration of the "mental disorder," of which such morbid changes were either the cause or the accompaniment. Precisely similar remarks apply to the evidence given by Dr. Diamond. I regret that in the cause of truth I am compelled thus to modify the statements put before the profession in the pages of the "*Medical Times and Gazette*." The issue of the examinations of Drs. Guy and Diamond it would appear rendered the farther services of the medical witnesses unnecessary; at any rate, at this stage of the proceedings, it was told me I was at liberty to retire from the court. Now, had I been placed in the witness box, and although engaged on the side of the plaintiff, it would have been my duty to have begun where Drs. Guy and Diamond ended. I held in my hand the two following records of cases of mania, with general paralysis. The patients had died at the Hanwell Asylum under my care more than twenty years since; and were, as a matter of course, examined by the medical staff, including myself. You will see how completely the facts about to be narrated, narrated as they were written at the time (nearly a quarter of a century ago) dispose of the first statements of the medical gentlemen named. *I do not mean those statements adduced by the cross examinations.*

Case 1.—M.H., æt. 31, admitted August, 1839; form of mental disease "MANIA AND GENERAL PARALYSIS." Duration of disorder, "about nineteen months." Died February 13th, 1841. Post-mortem appearances: "*calvarium thick*;" fluid in large quantity between membranes; pia mater firmly adherent to the surface of the brain; brain generally much *softened*; ventricles distended with fluid.

Case 2.—S.M., æt. 29; form of disorder "MANIA AND GENERAL PARALYSIS;" duration of disorder "two years;" examined sixty-two hours after death; "*cranium much thickened*;" strong adhesion of dura mater to bone; much opaque serum between membranes; anterior hemisphere shrunk.

You will not fail to remark that in both of the above cases the bones of the head were changed from the normal state, and hypertrophied; and that the duration of the disorder was in M.H. but nineteen months, and in S.M. two years.

The fact is, the case of the plaintiff was overdone in every way. Too much was attempted to be proven, and hence it broke down. The proper course for the medical evidence to have taken, so far as the post-mortem appearances went, would have been, as it appears to me, simply this—to have attached to them that they merited, and no more than this. Nothing can be more uncertain than the morbid appearances found within the heads of those dying insane; no two cases of mania, no two cases of melancholia, no two cases of dementia, no two cases of general paralysis (and this it was that killed the late Mr. Pearse) are marked by the same morbid products.

Nor is the duration of madness, or of any one of its protean forms or shapes, the least guide to, or index of the organic changes found on the autopsic examination. And this is what should be, regard being had to the proximate cause of insanity. The post-mortem changes found are not the origin of this dire malady, pure and simple, but the consequences of it. It is the extension of abnormal action commencing in the cells of the cineritious neurine, to the capillaries which beget the seen and appreciable lesions found after death.

These same lesions are uncertain, because such an extension of morbid change in the tissues does not always occur to the insane; and when it does it has in each case its own measure of intensity and endurance; hence the differing degrees of the opacities, adhesions, morbid densities, and so on. The absence

of diseased appearances within the heads of those dying insane, proclaims that the affection has continued limited to the cells of the *grey matter* of the brain; and so it is that the records of the dead-house of the Hanwell Asylum demonstrate that 5 per cent. of the insane are without appreciable lesion of structure within the cranium.

If this good ground had been broken by the medical witnesses on the side of the plaintiff "In re Pearse and Pearse and another" I think it not unlikely that the issue of the trial would have been different from what it was. Doubtless the tone given to the medical evidence, so far as it went in *the cross-examination*, rendered, to some extent, the cause of the plaintiff hopeless. Two words in conclusion—1st. The days of medical partisanship must be numbered. 2. All questions of medical science occurring in our Law Courts must be decided by a MEDICAL JURY, *i.e.*, by ARBITRATION.

I am, Gentlemen,

Your obedient servant,

J. G. DAVEY, M.D.

Member of the Royal College of Physicians, &c., &c.

Northwoods, Bristol,
25th August, 1868.

To the Editors of the Journal of Mental Science.

Glamorgan County Asylum, Bridgend,
August 31, 1868.

GENTLEMEN,—

In the notice of the Annual Report of this Asylum, which appears in the July number of the Journal, it is stated that the appendix to my report is "chiefly devoted to casting doubts on the value of medicinal agents in the relief of the symptoms of acute and chronic mental diseases."

I must beg leave entirely to disavow this wholesale scepticism. I have written nothing which warrants its imputation. The appendix (9 v.) speaks of narcotics and sedatives, "fully acknowledging their great value in many cases," but condemning their "*habitual indiscriminate use*," as "needless and baneful." It also deprecates the "*undue use*" of digitalis, as not unaccompanied with danger. These are the only medicines spoken of in the appendix; the very important question as to the value of medicinal agents in the treatment of mental diseases is not alluded to except in these instances, and it can only be by inadvertence that the reviewer makes the above sweeping criticism.

I conceive the "medicinal" treatment of insanity to be probably the widest and most difficult department of practical medicine, and one which has of late been receiving too little attention. The excitement has been too much regarded as the disease, and the medicinal treatment has been too much confined to the class of remedies of which the appendix speaks.

I do not allude to other subjects, as the object of my letter is not to answer criticism, but to remove misapprehension.

I am, yours faithfully,

D. YELLOWLEES, M.D., Edin.,

Medical Superintendent.

Appointments.

SIR CHARLES HOOD.—We announced last week the election of Dr. W. C. Hood as Treasurer of Bethlehem Hospital. He has this week received the honour of knighthood, in recognition of his eminent services to psychological

medicine and practice, and of his public services in his professional capacity.—*British Medical Journal*, July 11.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on the 10th August, Charles Alexander Lockhart Robertson, M.D. Cantab., County Lunatic Asylum, Haywards Heath, and Thomas Harrington Tuke, M.D. St. And., Manor House, Chiswick, were duly admitted Fellows of the College.

BATT, H., L.R.C.P. Ed., has been appointed Assistant Medical Officer to the Somerset County Lunatic Asylum, Wells.

CASEY, E., M.B., has been appointed Senior Assistant Medical Officer to the Gloucester County Lunatic Asylum, Wotton, vice John H. Simpson, L.R.C.P.L., resigned.

ROBERTSON, JOHN C. G., L.R.C.P., M.R.C.S.E., has been appointed Medical Superintendent of the Cavan District Lunatic Asylum, Monaghan, Ireland.

PRITCHARD, H. J., M.R.C.S.E., has been appointed Junior Assistant Medical Officer to the County Lunatic Asylum, Gloucester.

Obituary.

DEATH OF DR. ROGAN.—At the County Derry Lunatic Asylum, on Sunday morning (30th ultimo), died Doctor Rogan, the Resident Physician of that Institution. Son of one of our most respected local medical men, and nephew of another, whose professional eminence was National—he was trained for the same calling. To a rare amount of natural talent, was added an education as perfect as industry and perseverance in the best schools and under the best masters could make it. At College he distinguished himself as a first-class prize-man in more than one branch of natural science, and his love of learning was such as to make him an earnest student to the end of his life. His knowledge and attainments, as a Physician, were held in high estimation by his brethren, who often asked for his assistance in cases requiring more than ordinary acumen. We have further heard it said by competent critics, that his judgment and skill as a surgeon were such as would have placed him in the front ranks of metropolitan practice. His tastes, however, were different, and his ambition soared no higher than the office he held. He gave up a growing practice, and confident hopes of eminent and lucrative position, to hold the unobtrusive appointment of Resident Physician of the County Derry Asylum. Here his energies were chiefly devoted to the study of mental disease, and to the treatment of his unfortunate patients, duties for which he was, in all respects, eminently qualified. But it was not merely his talents or his attainments that won the love of all who knew him. The remarkable geniality of his disposition, his imperturbable sweet temper, his kind and unselfish life, have endeared him to persons of every class and denomination, and rendered his death a public loss. His unexpected removal was caused by disease of the heart. We learn that his professional brethren have asked permission to attend the funeral as mourners; and that a similar tribute of respect is intended by the members of the Society of Freemasons, of which he was a distinguished brother and a bright ornament.—*Londonderry Standard*, Sept. 2, 1868.

We may add to the above well-merited eulogium on the late Dr. Rogan, whose personal acquaintance we enjoyed for a number of years, that he held the trying and arduous office in which he died so suddenly for a period of ten years, the discharge of the duties of which could not have been more faithful or efficient than in his hands. He was a member of our Association since 1861, and always took a warm interest in our speciality, thus making his premature and lamented removal to be the more keenly felt. He has left behind him a widow and several young children to mourn the irreparable loss of a most devoted husband and parent. The deceased had only reached 41 years of age—*R.S.*



No. 68. (New Series, No. 32.)

THE JOURNAL OF MENTAL SCIENCE, JANUARY, 1869.

[Published by authority of the Medico-Psychological Association.]

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The Journal of Mental Science.

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The copies of *The Journal of Mental Science* are regularly sent by *Book-post* (*pre-paid*) to the ordinary Members of the Association, and to our Home and Foreign Correspondents, and Dr. Robertson will be glad to be informed of any irregularity in their receipt or overcharge in the Postage.

The following *EXCHANGE JOURNALS* have been regularly received since our last publication:—

Annales Médico-Psychologiques; Zeitschrift für Psychiatrie; Vierteljahrsschrift für Psychiatrie in ihren Beziehungen zur Morphologie und Pathologie des Central-Nervensystems, der physiologischen Psychologie, Statistik und gerichtlichen Medicin, herausgegeben von Professor Dr. Max Leidesdorf und Docent Dr. Theodor Meynert; Archiv für Psychiatrie und Nervenkrankheiten, in Verbindung mit Dr. L. Meyer und Dr. C. Westphal, herausgegeben von Dr. W. Griesinger; Correspondenz Blatt der deutschen Gesellschaft für Psychiatrie; Irren Freund; Zeitschrift für gerichtliche Medicin, öffentliche Gesundheitspflege und Medicinal-gesetzgebung, Wochenschrift für Aerzte, Wundärzte, Apotheker und Beamte; Journal de Médecine Mentale; Archivio Italiano per le Malattie Nervose e per le Alienazioni Mentali; Medizinische Jahrbücher (Zeitschrift der K. K. Gesellschaft der Aerzte in Wien); the Edinburgh Medical Journal; the American Journal of Insanity; the Quarterly Journal of Psychological Medicine, and Medical Jurisprudence, edited by William A. Hammond, M.D. (New York); the British and Foreign Medico-Chirurgical Review; the Journal of Anatomy and Physiology, conducted by G. M. Humphrey, M.D., F.R.S., and Wm. Turner, M.B., F.R.S.E.; the Dublin Quarterly Journal; The Liverpool Medical and Surgical Reports, October, 1868, edited by F. T. Roberts, M.B., B. Sc., Lond., and Reginald Harrison, F.R.C.S.; The Lancet; the Medical Mirror; the British Medical Journal; the Medical Circular; The Practitioner, a monthly Journal of Therapeutics, edited by F. E. Anstie, M.D., and Henry Lawson, M.D.; the Journal of the Society of Arts; Scientific Opinion, a monthly record of Scientific Progress at home and abroad. Also the Morningside Mirror; the York Star; Excelsior, or the Murray Royal Institution Literary Gazette.

THE JOURNAL OF MENTAL SCIENCE.

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VOL. XIV.

PART 1.—ORIGINAL ARTICLES.

On the state of the Small Arteries and Capillaries in Mental Disease. By W. H. O. SANKEY, M.D., Lond., F.R.C.P., President of the Medico-Psychological Association.

(Read at the First Quarterly Meeting of the Medico-Psychological Association, held at the Royal Medico-Chirurgical Society, Oct. 29th, 1868.)

AMONG the structural changes which may cause the phenomena observed in insanity, physiology leads us to the conclusion that they must be connected with, firstly, the nerve tissues, and, secondly, the blood. It teaches us that upon the action that takes place between these elements the phenomena of mind depend.

In studying the morbid anatomy of the disease, our attention must be directed primarily to these, which may be called the essential elements, and, secondly, to their containing organs, which may be called the secondary elements.

The containing organs of the nerve elements consist of the bony and membranous envelopes.

The containing organs of the blood are the blood vessels.

In the present paper I propose to confine my remarks mainly to the state of the latter of these secondary organs, namely to the blood vessels.

I have selected this portion of the subject, not only to confine my paper within a reasonable limit, but because already a very large share of the attention of physicians has been

hitherto engrossed in the examination of the membranous and other containing organs of the nerve tissue.

I am not going to claim for the blood vessels an all-important function in the act of cerebation, yet I am disposed to think the part they play in this function has not been duly acknowledged.

Physiology supplies us with certain data on which we may estimate the importance of the function performed by the vessels.

These data are, briefly.

1. That each act of cerebation (which results from an action of the blood and the cerebral tissue) requires that the blood be unimpaired in quality and of a just quantity.

For, that blood impaired as to quality produces imperfect cerebation has been proved by the injection of poisons into the blood, by the action of certain drugs which are known to enter the circulation, &c.

And that blood supplied in altered quantity interferes with the proper action of the cerebrum, has also received abundant proof experimentally—as when syncope, unconsciousness, convulsions, are produced by a withdrawal of blood from the cerebral circulation.

The second datum supplied by physiology that I will cite is that the normal property of the vessels is to so vary from time to time as to degree of fulness.

With respect to this fact we have also the following :—

1. That the change from fulness to the opposite condition occurs normally in sleep.*

2. That the same is known to occur as a morbid phenomenon, as in all kinds of congestions.

3. That this alternation of fulness or comparative emptiness of the vessels appears to obey, in certain cases, a law of periodicity, as I. normally, in the periodical disposition to sleep; or II. abnormally, in the recurrence of the hot and cold stages of ague—in tic, &c.

4, and lastly. That the state of the vessels is known to be affected through a mental influence—as in blushing, or pallor, or fright, &c.

Anatomy points out the free communication that exists by

* Durham on the Physiology of Sleep, Guy's Hospital Reports, Vol. VI. p. 149.

means of the sympathetic system between the cerebrum and the vessels.

Anatomy also explains how the variation in fulness of the vessels is affected by the agency of the muscular coat of their walls.

Dr. George Johnson, in his very suggestive papers on this subject, has lately sought to show how the phenomena of rigors and epilepsy may be explained by the agencies of the vessels.

He explains the action of the small arteries to be that of regulating the amount of supply to an organ by their power of contraction, and that the action of these arteries may be compared to a system of stopcocks, which prevents a too great flow of blood to an organ, or the passage of a blood of an impaired quality to the ultimate tissues. This view of the action of the vessels in question has received the assent of many physiologists, in contradiction to the view once entertained that the use of this muscular coat was simply and wholly propelling.

Dr. Johnson found that in advanced renal disease the small arteries of the tissue, not only of the kidney, but of the skin, and also of the *pia mater*, become in some cases enormously hypertrophied, so much so that whereas, normally, the walls of a small artery of the *pia mater* collapse, and show by transmitted light but very faint outlines at their edge, in some of his cases the walls showing on each side of the calibre of the vessels were wider than the calibre itself.*

His explanation is that these walls become hypertrophied as the ordinary result of over-work, that in certain cases the heart itself becomes thus hypertrophied to overcome the resistance caused by the smaller vessels, and thus by a kind of antagonistic action, both parts increase in thickness.

The effect of the hypertrophied heart, therefore, must be always borne in mind in estimating the alteration observed in a small artery.

I have been anxious to examine the views of Dr. Johnson in connection with certain phenomena of mental disease, not only because a fixed and constant seat of morbid change, in cases of mental disease, has not been satisfactorily proved, but also because certain of the known properties and functions of the vessels, as already stated, appear to correspond with

* A drawing of the appearance of small artery was exhibited, showing its normal thickness.

certain of the phenomena observed in insanity—namely, many of the phenomena of insanity are not of fixed character, as the frequent changes often observed in the same case from grave to gay, as in those cases called “*Folie Circulaire*,” in which a state of melancholy mania and a lucid interval often alternate with regularity; as in the occurrence also at periods of more or less regularity of paroxysms of violence; the occurrence of a distinct lucid interval in patients apparently demented; in the frequently mentioned circumstance of an old lunatic becoming rational just prior to death: all these seem to point to a changing or shifting cause as the seat of the disease, rather than to a permanent one.

Now since similar phenomena may be produced experimentally—first, by altering the quantity of the blood by abstracting a portion of the supply; secondly, by altering its quality by the introduction of foreign elements; and that both of these, if produced by disease, may, as shown by Dr. G. Johnson, *leave their traces* upon the structure of the arteries, I have thought an examination of the arteries would be of value.

I offer my own observations and my reasons for undertaking them rather to induce others to follow out the enquiry than from any supposition that any real result can be expected at this stage of the investigation.

I have submitted to a very careful re-examination sixty-eight specimens of arteries taken from twenty-five cases of disease, of which 8 were cases of general paresis.

7 “ dementia.

7 “ chronic insanity.

2 “ epilepsy.

1 “ acute mania. And I com-

pared the tissues with those of five persons dying sane.

Of the eight cases of *general paresis*, I found slight thickening of the walls of the small arteries in one only; it was slight in degree; in the rest of the cases the condition of the walls appeared as in normal brains; while the state of the capillaries was more or less changed in all—in most of them there was some indication of varicosity. (The drawing No. 2, sketched from the appearances observed, was exhibited.)

Among the seven cases of *dementia*, but which, with two exceptions, were of patients dying in advanced years, there was some degree of hypertrophy of the walls in all but one; this patient was the youngest of the seven, and was about 35 years of age. In some of the arteries of this case there was

a slight disposition to the same condition as shown in sketch No. 3. (Handed round.)

In one case, that of a patient who died in 1862, and who was the first patient admitted into Hanwell Asylum and who had been insane several years prior to admission, the small arteries were greatly hypertrophied. (A drawing from the specimen was shown, and the vessel in this case fell into curves more like in contour to a flexible stethoscope than a membranous tube, and the smaller arteries showed a small calibre running through a thickened vessel).

In No. 5 (sketch exhibited) the lining membrane of the vessel had taken the stain* and showed an irregular outline; the vessel fell into folds like those of a stiff tube, and the vessel remained patent. This was taken from an aged person.

In the seven instances of *chronic insanity* the arteries varied greatly in character. In four there was a decided increase in the walls of the vessel.

The drawing No. 6 showed the appearance of the small arteries in a patient who had that form of disease called "folie circulaire." She was 35 years of age at the time of death, and had been insane several years.

Among the other preparations some of the specimens exhibited greater and one or two a less degree of thickening of the walls of the small arteries.

Lastly, I failed to detect any alteration in one case of the chronic dementia as to thickness of the same vessels, but the capillaries were twisted and varicose to a great degree. This patient died of locomotor ataxy.

The cases of *acute disease* and *epilepsy* appeared to present no deviation from the normal condition.

Lastly, though there is a great variety in the appearance of the individual cases, no two being altered precisely to the same degree, or giving a very similar appearance in the state of the *small arteries*, the appearance of the *capillaries* of all the cases of general paresis certainly appeared to me to give a much greater uniformity of character; in five out of the seven there was a distinct varicose condition: but the same condition was found also in one of the other cases.

I will only add a few remarks upon the above observations, merely to indicate the impression that is left upon my own mind by the enquiry thus far carried out.

The large number of the cases of chronic insanity and im-

* Most of the preparations exhibited were stained with Litmus.

becility, or dementia, in which the hypertrophy of the arteries was found, appears to point to the following conclusions:—

1.—That the muscular coat of the arteries in these cases, at one period of their progress, has had an excessive amount of work to do.

2.—That the cause of this excessive work has been probably either (A) the existence of an impure state of the blood; which is rendered probable from the occurrence of (a) certain symptoms connected with mal-assimilation in the early stage of the disease, as heart-burn, flatulence, constipation, and other dyspeptic symptoms; and (b) certain other phenomena, common in the insane, observed in a later stage, and connected with the blood-making organs, as disease of the heart, kidneys, and lungs, the existence of which is verified by post mortem inspection, and shown by symptoms during life as palpitation, throbbing of the arteries, and distinct signs of actual heart disease,* &c., &c., or (B) the excessive action may be due to direct nervous influence. When the hypertrophy of the peripheral vessels is due probably to excessive force in the central organ; for excessive action produced by over excitement in the part itself, would be less likely to produce both the morbid cause and the healthy antagonism to counteract its effect.†

It would appear also highly probable, while the state of the blood (or other cause) thus gradually induces a permanent hypertrophy of the arteries, that when the case has passed into a more chronic condition, this state of the vessel becomes a cause of imperfect blood supply to the organ, the balance of power between the propelling action of heart and the regulating or arresting power in the capillaries is disturbed, and the cerebral circulation is thus interfered with; and this appears to be so because such an impediment as the muscular power of the artery is one that might vary from time to time in degree, for the condition of the arteries

* Esquirol found heart disease in $\frac{1}{15}$ of his cases; Webster, $\frac{1}{8}$; Bayle, $\frac{1}{6}$; Calmeil, $\frac{1}{3}$; Sutherland, $\frac{1}{14}$; at Vienna, in $\frac{1}{4}$.

† There is little doubt from Dr. Johnson's observations that hypertrophy of the heart is found in conjunction with hypertrophy of the walls of the small arteries; but it is obvious if the hypertrophy of one is balanced or adjusted by the increased power of the other, no ill effect would result. Dr. Johnson tells me that in certain of his cases in which hypertrophy of the walls of the arteries of the pia mater existed to an extraordinary extent, there was no marked cerebral disturbance till just preceding death. It is much more probable that in insanity the impure condition of the blood induces the hypertrophy.

is known to undergo periodical change, as in sleep,* ague, &c. And there is scarcely any case of imbecility which is not subject to periodicity. In some imbeciles, excitement is on alternate days, with great regularity; in some the variation is less frequent; in others, less regular, &c., so that the normal law of periodicity of function exists in conjunction with the abnormally increased force.

Even in cases of advanced dementia, &c., in which it may be inferred that the circulation must be interfered with to the greatest degree (if such be the explanation at all of the phenomena) it is well known there will often occur a distinct lucid interval. We can imagine that a cause might arise in such a case, or causes might conjoin to produce a relaxation of the hypertrophied arteries. We can easily conceive how the period just preceding death might have the same effect on the arteries, and thus cause what is known frequently to take place, while a periodical and transient repair of a diseased nerve element seems far less probable.

Thus the occurrence of the phenomena in certain cases appears to obey the following order of succession:—

1. An alteration in the quality of the blood.
2. Excessive work of the small arteries of the brain.
3. Hypertrophy of their muscular coat.
4. Interference with the cerebral circulation; and
- 5, deficient nutrition of the organ; or, the first item may be incorrect, and the second may be called forth by what stimulates the nerve force of the arteries themselves, as mental influences, or such like.

While, 2ndly, the appearance of the arteries found in the cases of general paresis seems to indicate a different order in the succession of the phenomena. In these cases there appears to be, as a rule, absence of all increase in the walls of the small arteries, but in place of it we find extreme varicosity of the capillary, and kinking and twisting of them. This condition would seem to indicate that from some cause there has been, at some period, a greater influx of blood sent to the brain than could be as quickly passed onwards; and hence arose a varicosity of the capillaries.

If the function of the muscular coat of the small arteries is rightly attributed to be that of checking or regulating the amount of the blood supply, the condition would indicate that

* "Whatever increases the activity of the cerebral circulation tends to preserve wakefulness; and whatever decreases the activity of the cerebral circulation, and at the same time is not connected with the general health of the body, tends to induce and favour sleep." Durham, *loc. cit.*

this interposing function was at fault; that no alarm, as it were, was felt by those vessels; that this action, in fact, was involved in the general paralysis.

If such is the case, the paralysis must be of the nerves supplying these vessels—that is, the sympathetic. That this division of the nervous system is really involved in the general paralytic condition of the patient is abundantly shown during the progress of the symptoms, and from the above appearances it is probable that the loss of power commences in the sympathetic system as early as in the rest of the nervous functions.

Such are the suggestions that have occurred to my mind while occupied in examining the specimens in my possession. My object would be misconstrued, however, if I am supposed to claim implicit acceptance for these reflections, drawn as they are from too few observations to establish any absolute conclusion. But the remarks may serve, I trust, to direct a more close examination of the state of the small arteries in the different forms of mental disease.

Appendix. Perhaps I may be allowed to add a few remarks which could not very well form part of the paper itself, as what I have to say is rather of a negative character than the opposite. I wish to guard myself from being understood to say that I locate the seat of all the morbid changes of insanity in the arteries of the brain. A careful reading of the paper itself will, I trust, protect me from such an error. Such changes as are found in the small arteries I look upon rather as a mark left behind, and which shows the footsteps of the progress of the disease, rather than constitutes the morbid anatomy of the disease. I have treated them as belonging to secondary, rather than the essential elements of the pathology. The appearances found were illustrated by drawings taken from the preparations, I do not reproduce them here lest those who look at illustrations only should be misled by them, for I cannot but think that such has been the cause of the error which I find propagated relative to what I have stated elsewhere on the same subject. In a late publication I am first stated to hold certain views, which I do not, and then I am simply told that I am mistaken. It has in some way got into one or more authors' minds that I have stated that a varicose state of the capillaries is the morbid change to which all the phenomena of general paresis are attributable; that this varicosity of the capillaries is in fact the pathognomic character of the

disease. I think such an opinion quite erroneous, and I have always so stated. I have published two papers on this subject, one of which has been reprinted in France, and amply reported in Italy and Germany. In one of the papers in question I said in respect to this question, "there appears to be some amount of tortuosity in the capillaries in every case of general paresis. This tortuosity in places amounts to a simple curve or twist; in places to a kinking of the vessel; in others to a more complex twisting until it forms, in fact, little knots of varicose vessels of very complicated kind. I have not found this appearance in any other form of mental disease, but it is described as existing in other cases, both by Rokitsansky and Wedl." In the other place I referred and reproduced the above, and added—"Since writing the above I have met with one case in which this condition of the capillaries was present."

But besides the question of the nature of the capillaries and as to the existence in them of a varicose state, there is another matter which I am accused of describing as abnormal while it is not so.

This refers to the real nature of what has been called perivascular canals. It appears to me that the existence of these canals has been exalted into unnecessary importance. That an intervening sheath existed between the walls of the artery and the parenchyma through which it traversed was readily to be believed—in fact it might have been prognosticated from what takes place in other situations, as in muscle, bone, &c. But that these canals, however, should vary in size and relation to the vessels contained within them, and should so vary in an inconstant degree, and still be the normal state of things, is contrary to my belief. That, in fact, these spaces should be three or four times the width of the vessel in one place, or in one brain, and not so in another, would be enough to prove the arrangement to be abnormal. It matters not whether the office of them is to carry nerves, absorbents, or for no such purpose, but surely there is in nature a normal condition. That the sheath, or tissues which surround the vessel, should in some cases adhere to the side of the perivascular canals, and in some cases adhere to the arteries, also tends to show that a change has occurred in connection with them. In my paper I merely stated that such appearances were familiar to me, and that I recognised the condition described by Wedl, viz., that sometimes this perivascular covering is transparent and sometimes opaque.

There is still, I think, nothing advanced to show why the sheath should, if normal, be sometimes transparent, sometimes opaque, sometimes closing adherent to the capillary or artery which it surrounds, and sometimes even inclose a small knot of varicose vessels.

I think it highly probable that the nerve tissue of the cerebral centres, especially in old cases, undergoes some change in its structure. I think the altered specific gravity of the brain indicates as much, but at present the microscope has not, I think, made the change palpable to our vision.

Note on the Localisation of Function in the Cerebral Hemispheres. By H. CHARLTON BASTIAN, M.A., M.D. Lond., F.R.S., Professor of Pathological Anatomy in University College, London.

MAN is born with a nervous system of the highest type, and in accordance with what we know concerning the laws of hereditary transmission, with one which—though at the time of birth so far advanced morphologically as clearly to foreshadow its future excellence—we are entitled to believe possesses within itself certain potentialities of organic development, definite enough and powerful enough to ensure its evolution in given directions, so long as its different parts are acted upon by those stimuli to which they have been accustomed in the preceding individuals of the parent race. To a certain extent the infant is even born already possessing capabilities of receiving impressions and of executing movements—corresponding parts of its nervous system being more advanced than others in histological development. And it may be stated generally, that these capabilities and these powers are gradually strengthened and extended in a definite order, as particular parts of the nervous system advance towards a more perfect development of tissue—that is to say, as nerve-cells and communicating nerve-fibres gradually arise out of the less specialised embryonic tissue which formerly occupied their place.

Although there is, therefore, a pre-arranged plan, so to speak, of development, and the several parts of the nerve-centres inherit a natural tendency to develop after a given

method, and in accordance with a pattern which has been gradually modified till it has attained its present comparatively perfect form, still the degree of development which the several parts will ultimately attain, depends in a most marked manner upon the kind and degree of education to which the individual is subjected. Experience acting upon the race has had its influence in gradually building up a complete nervous system such as the infant inherits from its parent; this carries with it certain powers, answering to what may be called the Instincts, and certain potentialities, on which the presence of so-called Innate Ideas depends. And now the experience of the individual, acting upon his particular organism, with its potentialities, will gradually build up his own particular knowledge and strengthen the reasoning faculties.*

The cerebral hemispheres are at the present time generally admitted to be the great Perceptive centres, which, in man, are chiefly concerned with the phenomena of Intellect, Emotion and Volition. These parts are double, and our sense organs have a bilateral symmetry, similar to that which exists for all the other organs of relation, although our Consciousness together with our sense of personal identity is single. Seeing that the education of the individual is carried on by means of the impressions derived through his more special senses of sight, hearing, smell, taste, and touch; from the action and consequent sensations derived through his muscular system; and from the less special, though still important and more general impressions of an organic nature flowing into the higher nerve centres from the various viscera; and seeing that these various avenues of knowledge are bilaterally symmetrical, it seems only fair to infer that the cerebral hemispheres on each side of the body, which are the ultimate recipients of these various impressions, should be endowed with like functions, since they too may be said to have a bilateral symmetry.† I am therefore strongly inclined still to believe in the similarity of function, and practical equality of education of the two cerebral hemispheres, notwithstanding all that has been said of late in opposition to this doctrine.

With regard to the question as to the existence of distinct faculties of the human mind, such as were formerly sup-

* See Herbert Spencer's "Principles of Psychology" for a full exposition of this doctrine.

† In minor details I am fully aware this is believed not to be the case in the opinion of the best judges—and if there is one thing more striking than another distinguishing the brain of man from that of the higher apes, it is the fact that in the former there has risen a very slight though still perceptible want of symmetry between the convolutions of the two hemispheres.

posed to exist by the phrenologists, and such as M. Broca and other pathologists have lately been speaking of under the name of the 'Faculty of Articulate Language,' I am thoroughly of opinion that any such division of the human mind into distinct faculties is impossible. In his profound work, the *Principles of Psychology*, Herbert Spencer says that, "fundamentally considered, intelligence has neither distinct grades nor is constituted of faculties that are truly independent; but that its highest phenomena are the effects of a complication that has arisen by insensible steps out of the simplest elements. Every form of intelligence being in essence an adjustment of inner to outer relations, it results that, as in the advance of this adjustment, the outer relations increase in number, in complexity, in heterogeneity by degrees that cannot be marked, there can be no valid demarcations between the successive phases of intelligence" (p. 486). If, then, such a division is a false one psychologically, we must all the more strongly disbelieve in the possibility of success attending the attempts which have been made to give such supposed faculties a definite seat in the cerebral hemispheres.

Even Perception, Intellect, Emotion, and Volition are all so intimately associated with one another in our ordinary mental processes, that as it seems to me, if we were ever to attempt anything like a definite mapping out of the territories of these—allotting a separate province for each of these great divisions of mind in the cerebral hemispheres—we should fall into a grievous error. Just in those parts of the cerebral hemispheres that are most concerned when we look upon a fine painting or a fine piece of statuary, may we imagine the emotions of admiration kindled to which the sight of these objects of art has given rise; * and just as the sight of ripe fruit upon a tree may incite a desire to possess, followed by a volitional stimulus for the purpose of obtaining the desired object; so in this case the parts concerned in the manifestation of the desire, and those in which the volitional stimulus originates, are probably situated within some portions of that same area of convolutional grey matter which was concerned in the perceptive act itself. In short, if anything like localisation of function is possible in the cerebral hemispheres, then I believe it would occur, and could be

* Dr. Maudsley seems to hint at some such relation as this, though he does not specify that the perceptive act and the emotional resultant pertaining to it have their origin in the same areas of grey matter, when he says, "Emotion is strictly perhaps the sensibility of the supreme centres to ideas." (*The Physiology and Pathology of Mind*, p. 47.)

accounted for, rather in this way :—that inasmuch as we have certain distinct avenues of knowledge (through the Sense Organs and their proximate nerve ganglia), and that the cerebral hemispheres are the parts concerned in the elaboration of impressions so derived,* we can well understand that the impressions entering through one gate or sense-avenue, may pass through the substance and towards the periphery of these Cerebral hemispheres in certain definite directions, and according to accustomed routes. Then, the impressions entering through another gate of knowledge, or avenue of sense, may, and probably do, pursue a different direction through its substance, so that at the periphery the fibres and cells concerned in the conduction and elaboration of these impressions may exist in maximum quantity in different portions of the surface of the hemispheres—though in part they may occupy jointly the same area, and be intertwined with the fibres and cells concerned in the elaboration of the previously mentioned set of impressions. And so on with the various sense organs and their ultimate expansions in the form of what I would call ‘Perceptive centres’ in the cerebral hemispheres. Thus, though there may be much and compound overlapping of areas, and though the area pertaining to the impressions of any particular sense in the cerebral hemispheres may be a very extended one (not to speak of the still further complication brought about by the communication established between the nerve cells of one sense area with those of others in the same hemisphere, and of the probable union by means of commissural fibres between analogous parts of the two hemispheres), still it may well be that certain portions of the surface of the cerebral hemispheres might correspond more especially to the maximum amount of nerve cells and fibres pertaining to some one or other of the various senses. I should expect, therefore, that the parts concerned in the production of the emotional feelings related to any particular sense or senses, as well as in the production of the volitional stimuli to which these might give rise, would be those parts of the Convolutional grey matter that represented, as it were, the Perceptive Centres of the senses in question.†

* Converting them in fact into what I call Perceptions—using this term in its ordinary psychological acceptation.

† For some of the applications of this doctrine the reader may consult a paper “On the Physiology of Thinking,” and also one “On the various forms of Loss of Speech in Cerebral Disease,” in the current Nos. of the *Fortnightly Review*, and of the *British and For. Med. Chirurg. Review*.

If we are to believe in the existence of anything like order or uniformity in the operations of the higher nervous centres, it seems to me that we are bound to come to some doctrine of localisation; and I am as fully disposed to believe that the path through the cerebral hemispheres traversed by an auditory impression in its passage upwards from the medulla to the cortical substance of the hemispheres is a definite one, as I am to believe when I touch the table at which I am now writing, with one of my fingers, that the impression so occasioned travels along a perfectly definite route from my finger to my spinal cord, and moreover that a similar impression would always follow the same course so long as the conducting parts remained uninjured. Unless we believe that some such order and regularity are observed in the passage of impressions through the higher centres, then it would be impossible to conceive how the perfection of result actually witnessed could be obtained. Where there is now order and constancy nothing but confusion and irregularity would seem possible, if nerve currents, instead of following definite routes, went wherever chance directed them.* Such a condition of things would, in fact, be a matter of the utmost improbability, seeing how much it would contradict the order observed in all the phenomena of the organic world, where functions are found to be always performed in a definite and regular manner.

Thus, localisation in this sense seems to be a simple *à priori* necessity; but how far there is distinct and separate localisation is a very different question. I, for my part, entirely disbelieve in the possibility of distinct and separate localisation, though at the same time I do believe that certain portions of the cerebral hemispheres—the anterior lobes for instance—are always concerned in the carrying on of intellectual and volitional operations of much the same nature, though of different

* Whilst believing, therefore, in a doctrine of uniformity, as regards the transmission, &c., of nerve stimuli, it would seem that though this is the general rule, still where injuries or lacerations of substance have taken place that a stimulus is capable of making its way along unaccustomed routes, so long as anastomoses exist, by which it may pass continuously from nerve-cell to nerve-fibre. This is found to be the case in the transmission of sensory stimuli upwards through the spinal cord—the transit is effected so long as the continuity of the grey matter is not entirely severed in any one region. It seems to be that the passage of an impression through nerve tissue from periphery to centre, or from centre to centre, accommodates itself to altered conditions in the same way that a stream of water would, if, flowing down a moderately steep incline, it came to a place where its main bed was dammed up, whilst collateral channels were present by which it might pursue its onward course.

degrees of complexity in different individuals ; and yet it can scarcely be said of carrying on, but rather of assisting and aiding to carry on, certain intellectual and volitional operations ; for, as previously hinted, it seems improbable that even such a large division of a cerebral hemisphere as the anterior lobe has a distinct set of functions peculiar to itself. The division into anterior, middle, and posterior lobes is an entirely artificial one, and the grey matter of the anterior region is, in all probability, intimately related, both structurally and functionally, to the grey matter of the middle and posterior parts of the hemispheres ; so that just as our psychical nature consists of one great complicated but unbroken network in which are bound together sensations, perceptions, judgments, emotions, and volitions, so is the physical organ corresponding to these also represented by the most complicated and intricate network of nerve-cells and nerve-fibres, mutually bound together and brought into correlation. In saying, therefore, that the anterior lobes are always concerned in the carrying on of intellectual and volitional operations of the same nature, I mean that they are mainly instrumental in such functions, not ignoring the great probability that they are assisted in these operations by the more posterior parts of the hemisphere, or the equally great probability that they take part to a minor degree in the execution of certain other operations which depend more especially for their execution upon the functional activity of the middle and posterior lobes. Just as certain of the senses contribute in a preponderating degree towards the building up of our mental impressions and their corresponding volitional results (e.g., those of sight, hearing, and touch), so we may imagine that these sense organs would be connected internally with a comparatively wide area of cortical substance in each hemisphere. It would be fair to infer as a probability, therefore, that the perceptive centres for visual impressions, and also those for acoustic impressions, would have a wide-spread seat in the cerebral hemispheres, whilst those pertaining to the gustatory and olfactory senses would have a more limited distribution.

Concerning the actual areas of distribution of the several perceptive centres, we can say little in the present state of our knowledge. Do they extend to any notable extent into the posterior lobes, or are these concerned more especially with the higher manifestations of intellect ? The latter is the supposition which, I think, much of the best evidence in

our possession rather tends to support.* Then, again, what share does the cerebellum take as a perceptive centre for impressions of any kind, or are its functions of an entirely different nature? These are questions concerning which we are not, at present, in possession of sufficient data to enable us to decide.

On the Antiquity of General Paralysis. By T. CLAYE SHAW, M.D., Lond., Assistant Medical Officer, Middlesex Lunatic Asylum, Colney Hatch.

SHAKESPEARE has used the character of "Achilles" to portray in vivid language his own conception of a malady of the mind which modern pathologists choosing to consider

A new disease, unknown to men,

have made familiar to us under the term of "General Paralysis." Doubtless, the recognition of this as a distinct phase of insanity necessitating confinement in an asylum dates from comparatively recent times, but Shakespeare not only remarked and described the chief symptoms, but also noted them as constituting a disease of the mind, though probably he would not have classed those so afflicted with the rest of "Bedlam Beggars."

In the "Manual of Psychological Medicine," p. 17, is a passage from Trelut said to be quoted from Hippocrates, in which Dr. Hack Tuke hints "we might recognise the symptoms of incipient general paralysis," but the quotation referred to from Hippocrates is doubtful.

The passage now to be commented upon is found in "Troilus and Cressida," Act II. Sc. III., and it is Ulysses who speaks:—

" Things small as nothing, for requests' sake only,
He makes important : possess'd he is with greatness ;
And speaks not to himself, but with a pride
That quarrels at self-breath : imagin'd worth
Holds in his blood such swoln and hot discourse,
That, twixt his mental and his active parts,
Kingdom'd Achilles in commotion rages,
And batters down himself : what should I say ?
He is so plaguy proud, that the death-tokens of it
Cry—' No recovery.' "

* Macmillan's Magaz., Nov. 1864, "On the Human Brain."

If language was given to conceal thoughts, surely in this instance language fails, for here is a positive description of certain facts and consequences with which we are familiar. There can be but one mode of explanation of this remarkable passage. That it has been overlooked by authors who have had especially in hand the psychology of Shakespeare is surprising, and can be only accounted for by supposing that as Homer certainly did not present Achilles to us as insane, so neither should Shakespeare have any reason for doing so. They err who reason thus. Shakespeare did not intend to describe Achilles as "mad." What he meant to describe was a condition of intense *emotional perdition*, as destructive to its abstract mental state as was a certain disease which he had noticed to be fatal to corporeal existence, and which he had coupled with all these signs of exaltation. And into the mouth of Ulysses, who spoke such "music, wit and oracle," are put these words—Ulysses, to whom throughout the play is given the burden of description, and from whom emanates the truest record of observation.

The character of Achilles is represented by Shakespeare as that of a pride-eaten, vainglorious man, spending his time in laziness and buffoonery, forgetful of his ancient prestige and the great cause in hand ; everywhere is this shewn :—

"The proud Lord that bastes his arrogance with his own seam, and never suffers matter of this world to enter his thoughts."

Again :—

"Over proud and under honest ; in
Self assumption greater than in the note of judgment."

And so on on all occasions is this

"Seeded pride to rank maturity grown up,"

pushed forward. Not that the great son of Peleus and Thetis, the terrible Argicide, had any lack either of possessions or pretensions to greatness, for he it was whom

"Reputation crowned the sinew and the
Forehead of our host."

And even Ulysses, speaking of Ajax, proclaims him,

"As amply titled as Achilles is."

Thus the "degree of greatness" with which Achilles was credited was neither altogether supposititious nor impertinent. He was a landed lord. His territory extended from Trachis to the Peneus, and he ruled over at least four peoples. There was in him no actual delusion of the existence of a power altogether ærial, chimerical; but as there must be a *modus in rebus*, even in undisputed greatness, so when this *modus* is exceeded, the exuberant growth is disease, and produces deformity. What a character must a man have when, to best show off his points, he is clothed with the garb of a diseased mind, as the one serving not to conceal his defects but to proclaim his weakness!

For clearness, let us analyse this declaration of Ulysses, and see how, to the letter, the condition of a "general Paralytic" is described.

"Things *small as nothing* for request's sake,"

i.e. for the mere reason that he was asked about them—rank contrariety—"he makes important." "*Possessed* he is with greatness," &c. How accurately do these words that we have put into italics denote the immeasurably-magnified fictions, the entire absorption in his own aggrandisement, of a general paralytic.

Even the very act of "speaking to himself" wrangles with the breath by which it exists, quarrels with the bridge that carries it over. "Imagined worth" and "kingdom'd Achilles" are spoken half satirically. All conversant with the assertive and tempestuous gestures of asylum-aristocrats and timocrats, will understand the "commotion between his mental and his active parts that batters down himself."

Now comes the most singular and decisive phrase, the last one: "He is so plaguy proud that the death-tokens of it cry, 'No recovery.'" "No recovery." Note the connection between the diseased ideas and the bodily annihilation. If the former part of the passage admitted of doubt, this latter does of none. Can we refuse to acknowledge the direct reference when we think of the almost (if not quite) universal fatality of "general Paralysis?"

"No recovery!" His pride presaged that he must perish. How and when Achilles died is uncertain. Homer says nothing about it, and all is conjecture. That Achilles betrayed no bodily weakness, his fight with Hector shows; and here let us notice an apparent anomaly in Shakespeare's

version of this fight, for, contrary to the express statement of the Iliad that Achilles, "plunging in that part his spear, impelled it through the yielding flesh beyond," and that when Hector was struck "The ashen beam his power of utterance left still unimpaired, but in the dust he fell and the exulting conqueror exclaimed," &c., &c. Shakespeare's account is, that Achilles surprised Hector when unprepared, and set on his Myrmidons to slaughter him. In the Homeric account the Myrmidons do indeed stab Hector, but not till he has been first killed by Achilles, and we are told "How far more patient of the touch is Hector now than when he lived." This instance of variation from the direct Homeric account is a good specimen of the whole tenor of the play, which, as Knight says, was meant to be "A deeply significant satire upon the Homeric herodotus. He had no desire to debase the elevated, to deteriorate or make little the great, and still less to attack the poetical worth of Homer, or of heroic poetry in general, but he wished to warn against the over-valuation of them to which man abandons himself."

Ulrici took the same view and says that "Shakespeare saw the danger of the indiscriminate admiration of classical antiquity, for he who accepted it must fall to the very lowest station in religion and morality." And so a deep lesson is read to human vanity by showing that when the pride which should ennoble becomes debasing, an emotional deterioration indicating death to all high sentiment and sense of honour follows. Such over-strained pride is as much a death-token of moral recovery in a Grecian hero, as of bodily recovery in a mortal man.

That Shakespeare did not mean to palm upon Achilles the very material disease, the proclamation of which is put into the rôle of Ulysses, but spoke merely as in a figure, intending but to typify a state of mind which he wished to present, is shown by referring a few pages farther on, where Ulysses, in that passage which ought to be at the finger ends of every student, beginning "Time hath, my Lord, a wallet at his back," &c., goes on to tell Achilles that the cry was once on him, and still might be again, urging him not to "entomb himself alive, and case his reputation in his tent."

Can Ulysses' statement be understood of any other disease than the one we have assigned to it?

In his "Medical Knowledge of Shakespeare," Art. "Troilus and Cressida," Dr. Bucknill gives in full the quotation we are

commenting upon, but having apparently a special object in view, that, namely, of collating Shakespeare's references to "The Plague," the learned psychologist seems to have neglected the first clauses and to have appropriated the word "plaguy," connecting it with "death-tokens" so as to make the reading parallel with some passages in "Love's Labour Lost," and "Antony and Cleopatra," in the former, where Biron says :—

"They are infected, in their hearts it lies;
They have the plague, and caught it of your eyes.
These lords are visited; you are not free,
For the *Lord's tokens* on you I do see."

And in the latter, where Scarns says,

"On our side like the token'd pestilence
Where death is sure, you ribald-rid hag of Egypt,
Whom leprosy o'ertake," &c.

Dr. Bucknill then quotes Woodall's account of a cutaneous disease where "these marks which are held to be of such fearful import are called 'the Lord's tokens.'"

If the whole passage be read in its entirety it must, we think, appear that the word "plaguy" is merely expletive, asseverative, and refers no more to "Lord's tokens" than Jack Falstaff did when he sneered out—

"A plague of all cowards, say I."

The word is used qualitatively in the sense of "very," "annoyingly," "wearisome," &c., its particular connotative meaning having disappeared,

"Plaguy" was never a second time used by Shakespeare in writing, but instances are numerous of the expletive use of the word "plague:" *e.g.*, once in connexion with madness—

"O plague and madness! you are moved."

TRO. AND CRESS., Act. v. 2.

And again,

"What a plague mean ye to colt me thus."

I HENRY IV., Act IV. 2.

And,

"'Tis the time's plague when madmen lead the blind."

LEAR, Act IV., 1.

There are multitudes of references to show that "token" is used as a sign, and thus that "death-tokens" mean but "signs of death," e.g.

"With signs and tokens she can scowl."

TITUS ANDRON., Act II., 5.

"A token from Troilus"

TROIL. AND CRESS., Act I., 2.

"What in time proceeds,

May token to the future our deeds past."

ALL'S WELL, Act IV., 2.

Subordinating then "plaguy" to its expletive sense (in which Manner Steevens in his commentary takes it) and understanding by "death-tokens" the signs of a deadly disease, we have the full force of the meaning evident.

Be it remembered, too, that Shakespeare lived in a time when society and intellectualism had made great and sudden progress. The Elizabethan age was peculiarly fertile in all the causes that untune the concords of the mind—religious feud, international warfare, civil strife, development of trade; all these crowding simultaneously, fell with terrible momentum upon men's minds, and those sources to which we in our times attribute the apparently exotic growth of "general paralysis" were really existing, and in a most potent form, but the relationship was not recognised.

Seeing the feeble development in Shakespeare's time of a scientific classification of mental diseases, can we wonder that he tacked on this description to no "mad" character? It was not a form penned up in mad-houses, manacled and caged; but it did exist, was fatal then as now, and coming under the eye of our great chartographer of the mind, was marked by him as a formidable entity.

If Shakespeare was anything he was a mental philosopher, whose accurate objective sensations rose rapidly into intense perception, and developed downwards in the motion of language, and around in the fertile territory of his stored-up imagery.

Shakespeare typed the debased herodom of Achilles by declaring that his extravagant bombast proclaimed him under the ban of the sure destruction awaiting those whose phantom pride heralds their doom.

Hospitals for the Insane in British North America. By JAMES R. DE WOLF, M.D., Edin., Medical Superintendent of the Nova Scotia Hospital for the Insane, Halifax.

IN the dominion of Canada and the adjacent provinces, embracing a population of three and a half millions, there are eleven asylums and hospitals for the insane. The smallest of these accommodates forty patients—the largest, six hundred. Their character, as curative institutions, varies equally with their capacity. The annual reports of the greater number present very satisfactory returns as to the proportion of recoveries, the rate of mortality, and their economical administration. No one institution will be found to excel on all these points, but the statistics of those best managed will compare favourably with those of the leading asylums of Britain or America.

1. The oldest institution for the insane in British America, and one of the best on this continent, is that at Toronto, Ontario. It dates back to A.D., 1843, and has recently been enlarged. When completed it will accommodate upwards of six hundred patients. It is built with a view to proper classification, and furnished with all needful appliances. The heating is by circulation of hot water, which even in this northern latitude is found to afford an equable and comfortable temperature. This asylum, with its university branch, and those at Amherstburg and Orillia, are under the control of the government of the province of Ontario.

2. Next to the Toronto asylum, in point of seniority, is that at Beauport, near Quebec, a private institution, in which there are six hundred patients. A large majority of these are supported by the province of Quebec, the proprietors receiving a liberal allowance for their maintenance. Although the present buildings are comparatively new, and by no means unimposing in outward appearance, the inmates are crowded, while the ventilation is greatly defective. Many of the single dormitories are prison-like in the extreme, having no windows, but opening into a corridor by a door with an open space above. This most objectionable arrangement is all the less excusable, since the proprietors are themselves medical men. The statistical returns are by no means full or satisfactory.

3. The hospital for the insane, Saint John's, Newfoundland, was opened in 1847, and is under the control of the

government of that colony. It accommodates one hundred and twenty patients, and bears an excellent reputation. So far as the reports have been published, they afford very satisfactory returns as to its operations.

4. The provincial asylum, St. John's, New Brunswick, has been established for twenty years. Its annual reports show a large proportion of recoveries, while the administration is in every way economical. A well tilled farm of forty acres yields abundantly, and the site of the institution is one of the very best. The number of patients is two hundred and twelve. The single dormitories are large and airy, the corridors spacious, and the whole well ventilated. Steam heating has been introduced, and other improvements are in progress.

5. Of the asylum at Charlotte Town, Prince Edward's Island, nothing praiseworthy can well be said. It is an alms house with lunatic wards (so called), and averages about forty patients. The cells, for they deserve no better name, are in part underground, with the smallest windows, no ventilation, barely heated with stove pipes; and altogether so repulsive in their appearance as to impress the visitor most unfavourably. This institution has no resident physician, nor are any reports published otherwise than in the newspapers. The insane of the better class are, as a matter of course, sent abroad for treatment.

6. The University branch of the Toronto Asylum, with seventy-five patients, has been in operation since 1856. The assistant physician of the parent asylum attends daily, there being no resident medical officer. When the Toronto Asylum is completed probably this branch will no longer be required.

7. The Nova Scotia Hospital, for the insane, was opened in 1859. The present capacity is for two hundred and thirty patients; when completed it will accommodate three hundred. It stands on a commanding site, overlooking the harbour and city of Halifax. In its construction all the modern appliances have been introduced. The heating, cooking, and washing are by steam, as also the mechanical ventilation. The gas for lighting the building is made on the premises. The water supply is perhaps unequalled, the drainage excellent. The tables of the Medico Psychological Association of England (of which the superintendent was the first colonial member) are introduced in the annual reports, and exhibit satisfactory returns. The admission of patients and their discharge (often on probation) is more assimilated to British practice than in other North American Asylums. A propor-

tion of the inmates are private patients, but the majority are maintained by the respective counties to which they belong. The religious services are held by Episcopalian, Wesleyan, Presbyterian, and Baptist clergymen in weekly rotation, the Roman Catholic patients having a short service of their own. The institution is highly eulogised by official visitors.

8. The Maldon Lunatic Asylum, at Amherstburg, Ontario, was originally a branch of the Toronto Asylum. It has now an independent existence. At date of last report the number of patients was two hundred and thirty-five. The building is defective, not having been designed for its present use. In provisioning the asylum an economical plan is adopted. Cattle are fattened and slaughtered on the premises, reducing materially the cost of their beef. The statistical returns are very satisfactory, especially considering the class of patients admitted. This institution has been nine years in operation.

9. Rockwood Lunatic Asylum, Kingston, Ontario, was originally an asylum for insane criminals, and connected with the Provincial Penitentiary. Since the confederation of the colonies it is the only institution for the insane remaining under the control of the Dominion Government, and is the only one free from crowding. The hospital is a handsome and substantial structure, well planned, and adapted for patients of a higher order. In his last report the superintendent suggests that the accommodation at his disposal be made available for private patients, and for country patients of the adjoining districts. Among the so-called criminals in this asylum are two of the Aborigines, perhaps the only recognised instances of insanity occurring in the North American Indian. The degraded habits of these sons of the forest, when brought into association with the pale-faces, carries them off prematurely. The entire race appears free from hereditary taint.

10. The Provincial Lunatic Asylum at Orillia, Ontario, hitherto a branch of the Toronto Asylum, has been occupied since 1861. Five-sixths of the inmates admitted were transferred from the parent institution. It accommodates one hundred and twenty patients. The building was originally designed for an hotel, and is surrounded by eight and a half acres of land only. The management is favourably commented upon by the late Board of Inspectors.

11. The Provincial Asylum, Saint John's, Quebec, scarcely deserves the name of an asylum. It is designated by the Inspectors "a miserable temporary make-shift, to be abandoned at the earliest possible moment." Every credit is given to the

medical superintendent for his zeal and good management under pressing difficulties; but the use of what was once a court-house—a wooden structure, to which only two acres of land are attached, as a residence for eighty-two insane patients—proves how difficult the task has been. With apparently nothing to recommend it, this institution appears to be the most expensively managed of any within the dominion. Situated not many miles from Montreal—the chief city of Canada—it is a matter of great surprise that long ere this steps have not been taken to supply in its stead an hospital for the insane worthy of the colony, and creditable to the country.

In each of the provinces additional asylum accommodation is required, and must of necessity soon be provided. To ensure their being built and sustained, it is merely requisite that the people should be convinced that more asylums are needed. The legislature of each province has heretofore granted the means required, and will, doubtless, continue to provide whatever funds are wanting for the erection of hospital buildings, while the respective counties may well be called upon to defray the cost of maintenance, as is already done in Nova Scotia.

One only of the present number is a private institution, and as its engagement with the Government for the support of the inmates will shortly terminate, probably this large asylum will revert to the Province of Quebec by purchase, or an institution will be built under the authority and control of the local government.

It is questionable whether under the recent confederation of the colonies, this class of hospitals should not have been transferred to the general government of the dominion. A board of competent inspectors could have had the supervision of the whole, as was recently the case in Canada, and a degree of uniformity might have been secured in their management, tending to elevate to a proper standard of excellence those hitherto allowed to retrograde.

With the two or three exceptions already noted, the Hospitals for the Insane in British North America, in their construction, management, and efficiency, are not far, if at all, behind those of any other country.*

* In the foregoing sketch, the terms "Hospital" and "Asylum" are used synonymously, and the insane are all designated "Patients." To the British reader it may be necessary to explain that within the past two years (July 1st, 1867), the Provinces of Nova Scotia and New Brunswick have been incorporated with Upper and Lower Canada (Ontario and Quebec) into a confederation styled the Dominion of Canada. Newfoundland and Prince Edward's Island remain isolated colonies.

NOMINAL LIST OF HOSPITALS FOR THE INSANE IN BRITISH NORTH AMERICA.

1868.

DATE OF OPENING.	TITLE.	LOCATION.	PROVINCE.	NO. OF PATIENTS.	MEDICAL SUPERINTENDENT.	REMARKS.
1840	Provincial Lunatic Asylum	Toronto	Ontario	400	Dr. Jos. Workman	Recently enlarged
1846	Quebec Lunatic Asylum	Beauport	Quebec	603	Dr. Jno. W. Pickup	Proprietary
1847	Hospital for Insane	Saint John's	Newfoundland	120	Dr. Hy. H. Stabb	
1848	Provincial Lunatic Asylum	Saint John	New Brunswick	212	Dr. Jno. Waddell	
..	Lunatic Asylum	Charlottetown	Prince Edward Island	40	Dr. Mackeson	Poor's House and Asylum
1856	University Branch of Provincial Lunatic Asylum	Toronto	Ontario	75	Dr. B. Workman	Soon to be relinquished
1859	Nova Scotia Hospital for Insane	Halifax	Nova Scotia	210	Dr. Jas. R. De Wolf	Recently enlarged
1859	Malden Lunatic Asylum	Amherstburg	Ontario	235	Dr. Andrew Fisher	
..	Rockwood Lunatic Asylum	Kingston	Ontario	139	Dr. J. P. Litchfield	Criminal Asylum
1861	Provincial Lunatic Asylum	Orillia	Ontario	120	Dr. J. Ardah	
1861	Provincial Lunatic Asylum	Saint John's	Quebec	82	Dr. Hy. Howard	

On the effects of Neurosis from Moral Shock. By D. DE BERDT
HOVELL, F.R.C.S.E.

THE constitution of man is tripartite; his well-being depends upon the soundness of his physical, mental, and moral condition. These three conditions are quite distinct, though they do not exist separately; a combination of them all in their different degrees and relations is necessary to the right exercise of their respective functions. They are all material, that is, they are essential conditions of the structures which represent them, and on the integrity of which their existence depends. There may be some hesitation in admitting this statement as regards the moral qualities, at the same time there is a wide difference between the feelings and passions which man possesses as a creature, and the principles of justice, mercy, and truth which are the attributes of the Creator. Mere feelings and passions belong to animals as well as to man. It is the association of these with the higher principles of which man's nature is capable that constitutes the emotions. The distinction between his moral qualities and the higher principles with which man has been endowed in order to guide them is, that the former move him in so much as they affect his physical condition, the latter simply raise and elevate his whole character. Thus, the passion of anger may excite a man and flush his face, disappointment may depress him, and fear blanch his features, but the exercise of justice, mercy, and truth do not disturb him; in proportion as he possesses these qualities he rises above his natural condition, and in proportion as he is deficient in them is his tendency to become degraded.

It is rather difficult accurately to define the principles which are so closely associated with the mental and moral qualities as not to be readily distinguished from them, especially when their close combination creates a quality of a higher order. The esprit de corps of a regiment may be taken as an illustration. This principle, if I may so call it, is quite distinct from the physical efficiency, the professional skill, or the morale of the soldier; it is above all these conditions, and undoubtedly tends to elevate them to its higher level, and if not actually an indispensable element, it would be very difficult to conduct military operations successfully without it.

Thus man evidently possesses a principle or spirit which is distinct from his moral qualities and above them, which regulates them in a similar way to that in which his moral qualities guide his physical nature, and gives him a spiritual condition as it were, as well as one that is natural, or physical. In the physical man, body, mind, and feeling are quite distinct, in man's higher nature, the mental and moral qualities become associated together, and the moral, or psychical, which is in fact the stronger, gives the name to both; thus the tripartite constitution of man's higher character comprehends—1st, the physical; 2ndly, the moral, consisting of the mental and moral combined; and 3rdly, the higher principle, or regulating quality. The two first represent the material; the third the immaterial part of his nature. Of these, the first two enter into the proper sphere of the physician, although his duties occasionally carry him beyond.

The double use of the word moral, namely, its first use in its proper sense, as separate from the mental qualities, and the second as combining both, has led to some confusion of ideas. We frequently meet with the term, mental emotions. We might as well speak of bodily intellect. The close association of the intellect with the feelings and emotions, and their constant combination in the exercise of both, should not give rise to confusion between their separate existence. The more we enquire into the matter the more we shall find that the intellectual faculties, *per se*, affect the health in the least, and the feelings or emotions in the greatest, degree. It is so difficult to meet with intellectual effort unmixed with emotion of some kind or other, excitement, anxiety, or what not, that we are apt, erroneously, to refer the combined effect of both to mental work, which, unless it be excessive, will be found to be less frequently injurious than is generally supposed.

Many have considered the brain to be the medium through which the emotions and moral feelings affect the system. This is true in a certain sense, because the impression is first conveyed to the system by the nerves of special sense, which arise directly from the brain; but the functions of the medulla are also affected. The excito-motory system suffers as well as the cerebral. The nerves of motion and sensation are affected as well as those of secretion. It would appear, then, that the acting medium is one which influences the nervous system generally. The healthy action of the nervous system must depend upon normal vascular circulation; consequently, the vaso-motory system, which not only regulates

the principal organs of circulation, but may be presumed to extend to the minute ramifications of the arteries and vasa-vasorum, may not unreasonably on that ground alone be supposed to be the real agent. The old physiology which associated the splanchnic nerves with the "bowels of compassion" was not far wrong.

Disappointment in some form or other is the most frequent cause of that form of neurosis from moral shock which calls for medical attention, and its immediate effect is depression.

In order to the right understanding of this subject, it is of great importance to distinguish and separate—

1. The effects of depression,
2. Those of irritation,

and I am the more desirous of insisting upon this distinction, being conscious of not having always sufficiently observed it myself. The subject was very obscure and full of error; the investigation of it was beset with difficulties. It was by no means easy, at first, to refer effects to their right causes. The views which I sought to bring forward were opposed to the generally received opinion; I had to encounter much prejudice, and the visinertiæ of prejudice is very great. The more attention is directed to the subject, the more manifest it will become, that the difficulty of rightly estimating its features, and the failure which has so long attended the treatment, have been owing to the fact that these two very different conditions have been confused and mixed up together. One reason of this is, that singly the causes have not sufficed to produce the result; until their joint action has been established the effects have not been adequate to call attention. The mere state of depression has been disregarded, and its cause overlooked, until the aggravation of it, by some source of irritation, has made it imperative to attend to it. The cause of irritation may be pre-existent or super-added; if pre-existent, it will have been inoperative until the super-vention of the additional circumstance of depressing influence; if super-added to depression already existing, the effect will be more obvious.

It was a favourite medical precept of the late Mr. John Scott, that the stage of irritation succeeded that of inflammation; it would be more correct to say that the state of depression or exhaustion of nerve-power which follows inflammation, is very obnoxious to irritation.

It is not unimportant to remark here, that the general effect of disappointment is depression rather than exhaustion. It does not so much take away power, as the inclination to use it; in extreme cases it goes beyond this. The effect of fear is also depressing—but in extreme cases, exhaustive too—to the extent of even causing death. Terror implies anticipation of suffering in some form in addition to fear; in the same way grief and sorrow are depressing, but they at times imply some additional element of oppression or anxiety, which calls for relief.

“ Give sorrow words, the grief that cannot speak,
Whispers the o’erfraught heart, and bids it break.”

This passage points forcibly to the importance of active sympathy in this our human condition, and shews that the duty of exercising it is something more than an amiable weakness.

There has ever been much incredulity in matters which are intangible and unseen. The existence of pain, which depends upon the bare assertion of the patient, and is unaccompanied by any circumstance which conveys a palpable idea to the senses, is frequently met by doubt on the part of the physician which is very obstructive to the administration of relief. It has happened to me, more than once, to see patients suffering from pain which has been entirely discredited by my colleagues in consultation. For my own part, I am very sceptical as to the frequent existence of groundless complaint. In cases which are not obvious, it is better to search for a hidden cause than to impute to fancy that which after all may prove to be a sad reality: it is more just, as well as more philosophical. When fellow creatures come to us for relief, we have no right to meet them with the imputation of untruth, and say mentally, “Is there not a lie in thy right hand.”

A depressed state of health will make some unduly susceptible of pain, and a morbid condition of ill-health will tend to make some others dwell unduly upon their sufferings and perhaps to exaggerate them. In such cases treatment requires to be directed, not so much to the symptoms complained of, as to the morbid condition which gives rise to them.

The fact that some persons bear pain much better than others is immediately followed by the question, whether all feel it in an equal degree. I am satisfied by observation that those persons who are susceptible of emotional influences are

more obnoxious to pain than others, and that the depressed condition of nerve power to which they are liable frequently makes their sense of pain very acute. They are also very easily fatigued, and incapable of much physical exertion, which in some instances brings on not only pain, but diarrhoea. Some are subject to menorrhagia, some have a tendency to uterine hemorrhage, both before and after labour. The combination of timidity and exhausted nerve power under the last named circumstances is often very distressing, and difficult to deal with. The patient has so little moral courage to uphold her.

In his lectures on the therapeutic influence of rest, Mr. Hilton remarks at page 429: "Surgeons are consulted by persons who have great pain and tenderness in walking, some pain in defecation and sitting, and pain about the posterior part of the coccyx. This kind of case occurs more especially in hysterical women. Such patients scarcely ever, or rarely, derive any benefit from remaining in the recumbent position. These then are true hysterical affections, and are to be treated in reference to such interpretation." I shall refer to this subject presently, but will take this opportunity of mentioning that I called the attention of Mr. Gowlland to the fact, that a gentleman on whom he operated for fistula, and who suffered unduly and exceedingly from pain afterwards, had long been subjected to irritating as well as depressing emotional influence.

Much depends upon the power of reaction possessed by different patients, and this point has not always met with the consideration it deserves. We are so accustomed to see persons going on in the continuance of strength, that except in the case of actual disease we do not readily recognise the condition of exhausted nerve power. We are apt to regard it with the same incredulity and difficulty of belief that those who have placed money in a bank hear the first news of its failure.

Sir Robert Walpole used to say that every man had his price; it would be more true to say that every man had his tether. The measure of capability depends not only on his extent of nerve power, but on the degree in which it is recruited by rest, sleep, &c. This power of reaction lies at the root of much that is important, and the degree possessed by different persons is by no means obvious. In going round the wards of a hospital the other day, we came to a man who was suffering from intense neuralgia. He had been admitted

some days previously with compound dislocation of the astragalus. The surgeon went away from his bed without prescribing tonics, narcotics, or stimulants, one or all of which seemed to be indicated. I ventured to remark that the patient seemed to be in a condition of depressed nerve-power. The reply was: "We have all come to the conclusion that the man had no nerves; neither the shock of the accident, nor the subsequent pain, nor anything else seemed to have any effect upon his nervous system." It did not seem to strike the mind of the surgeon that they had come at last to the end of his nerve power, and that the pain which he suffered was partly due to the fact that his stock was exhausted.

The importance of distinguishing and practically separating the state of depression from that of irritation acquires daily confirmation; equally so that of distinguishing the effects of emotions that are simply depressing, from those that give rise to irritation. It is also essential to keep in mind the great susceptibility of the condition of depression to excitement and irritation. The intrinsic difficulty of the subject, and our own want of definite knowledge, induces me to put out of the present question the precise pathological conditions and the chemical changes of secretion and excretion which it involves, and pass on to one of greater importance, namely, whether mere depression actually causes pain, or whether pain is not indicative of irritation in some form or other. It is doubtful to my mind whether depression, or its more extreme form of paresis, or exhausted nerve power, suffices of itself to cause loss of motor power, except in a temporary form; and extended observation will, I believe, be found to prove that irritation in some form or other, is necessary to produce disturbance or loss, of motor power, of sensation, or of secretion, and that these results obtain according as the motor, the sensory tract, or the nerves supplying the organs of secretion, are affected. If this hypothesis be correct, it will tend to account for many phenomena which have not hitherto received a definite explanation.

"The readiness to take on perverted action," which Dr. Russell Reynolds has described as the condition of epilepsy, is very much another mode of expressing the same thing. It is also in accordance with the views recently advanced by Dr. Rolleston, that pain is not a consequence of relaxation or congestion, but of spasm arising from the irritation of certain branches of the sympathetic nerve, and as before stated, the cause of irritation may be super-added or pre-existent.

But to apply this hypothesis to the subject before us. The effect of irritation in the form of worry, super-added to the depression of disappointment, does not always go to the extent of producing loss of motor power, or actual pain, but the diminutive of the former, in the form of limited power of exertion, and of the latter in that of cutaneous hyperæsthesia. In my Essay on Pain, &c., I have already published a case in which these conditions of ill-health received a very wrong interpretation from the physician who was consulted in the case. At the request of her medical attendant, I saw this patient, accompanied by her mother, and the following is the history:—

She was twenty-eight years of age, had experienced a severe fall when five years old, and had not been well since; consequently, she had been an invalid, more or less, for twenty-three years. The family were in very moderate circumstances, and as the patient grew up she made repeated attempts to increase their pecuniary means by her own exertions. Her health was unequal to any strain or effort beyond a certain point, and repeatedly broke down in these praiseworthy attempts. It was under these circumstances that her father thoughtlessly, inconsiderately, and with some loss of temper, reproached her with indolence and fanciful illness; and the pain and irritation caused by this injustice and unkindness on the part of her own parent, produced the hyperæsthesia and other symptoms which subjected her to such unjust and unworthy imputations.

To make the painful nature of the case more complete, she had incipient threatening of spinal disease, for which the orthopædists had recommended a steel support. Truly, the support she needed was moral rather than physical, and by a misprison of treatment, it was now proposed to apply to her back “the iron,” which, in a figurative sense, “might be said to have entered into her soul.”

The shock of an accident, a physical cause, was the first occasion of ill-health; physical depression from over exertion, combined with moral depression and subsequent irritation, the causes of continuance and aggravation. It is quite clear that the true nature of the case was not only not comprehended, but utterly misinterpreted. The case was quite genuine, the above-named conclusions were not arrived at without careful investigation, and I have no hesitation in saying, that the hyperæsthesia was the result of moral depression and irritation, and not of the immoral perversion of a natural function.

Body, mind and feeling represent the physical, mental, and moral conditions of man. The brain and spinal marrow have long been considered the analogue of the mental and physical divisions, but their action and function would be as imperfect without the aid of the sympathetic, as man's physical and mental condition without his moral element. There has been some doubt and hesitation in recognising the sympathetic system to be the analogue of the moral part of man's nature; but, notwithstanding the ridicule which some have cast upon the hypothesis, it does appear to deserve consideration. Many circumstances tend to make it reasonable to suppose that the emotions act directly upon the sympathetic, and not on the brain.

It may seem out of place in an essay on Mental Science to begin by declaring the nature of man to be tripartite. It is not so in reality. Much of the difficulty which has beset this subject has arisen from the habit of regarding man's nature as dual and not triad. It may appear a bold assertion, and, however paradoxical, is nevertheless true, that the intellect of man has, by many, been unduly elevated above his moral nature. It has been too much the fashion of some to worship the god Intellect, and to affect to despise those who have the good sense to perceive that it is but an imperfect deity after all. Be this as it may, it is also certain that man's mental and moral qualities have been so confused together, that most of us have very hazy ideas of their respective definite relation.

But what is practically of more importance to our present subject—the morbid physical symptoms which ensue and depend upon conditions of depressed moral power from emotional causes, have never been properly recognized or rightly understood. They are often obscure, for the simple reason that their cause is not obvious, or, it may be, intentionally concealed. Many difficulties attend their investigation, and they will, in my opinion, be found to be incomprehensible, until the tripartite nature of man be thoroughly recognized and admitted, and this will only be after careful investigation. The point to which I desire to call special attention is this—*the direct effect of depressing emotions is to lower moral tone, and to lessen moral control in a greater or less degree.* It is the moral effect of a moral cause, and this fact is of importance in proportion as we recognise moral control to be the ruling influence over man's conduct.

The following case will illustrate this:—

A widow lady, more than seventy years of age, experienced a severe shock in the sudden announcement of the serious illness of a favourite sister. Her own married life had not been devoid of anxiety. Her husband's illness had been long and distressing. She was a quiet, self-contained, sensible person, and for many years her time had been divided between her religious exercises, correspondence with her friends, and her duties to the poor. Latterly, a moderate income had become straitened, and the high price of provisions was a trouble to her. She became alternately excited and depressed, restless and uneasy. She did not sleep at night, and frequently expressed fear lest others should think she had not acted in all respects as she should. Even the consolations of religion, the solace of many a solitary hour, began to fail her. "I must be very wicked," she said, "for all the beautiful things they read to me are no use. I cannot attend to them, or apply them to myself." Her self-confidence was shaken. She frequently exclaimed, "What can I do? What shall I do? Do help me," As this condition increased, her state became truly pitiable. An old and attached servant took upon herself to rout her, after the fashion of a full-blown Mrs. Grundy. "My mistress is in a sad way, and must be got out of it by some means. It is of no use to talk to her; she will not rouse herself."

The patient acknowledged that it was very foolish to be so much affected by a circumstance which, after all, might not be so bad as she expected, and her thoughts alternated between anxiety on this point, and her pecuniary affairs. The latter increased to a fixed delusion that she had spent her all, and was ruined. "I had always hoped," she said, "that my sister would have nursed me in my last illness, and now that comfort is taken away from me." "It is quite clear then," I said to her, "that your property being also gone, the only thing left to you is to put your trust in Providence." This seemed to stagger her. She was silent for a moment, and then said, snappishly, "I know that as well as you do." "Then why do you not do so?" "Because I cannot."

I suggested to her to try and divert her thoughts by repeating some poetry, and she immediately recited an appropriate hymn accurately, and with great composure. She stood calmly and quietly for a moment, and then suddenly exclaimed, "Now I feel inclined to do my steps." She had been a graceful dancer in her youth, and she started off, figuring about the room like a bacchante, or attitudinizing nautch girl.

After a short time she came and stood before me, and looked me full in the face. "Did you ever know such an old fool? To think that I should have lived all these years, and come to act in this manner. I am quite ashamed of myself."

I should mention that in some other respects her conduct had been marked by the reverse of that decorum which was her wont. This painful state continued for some weeks. The appetite failed at first; but notwithstanding that she took a fair amount of nourishment, her power began to fail; for some days she slept the greater part of the twenty-four hours, and died rather suddenly after getting out of bed.

The general state of this patient was chronic depression, which was further increased by the shock of unfavourable news, suddenly communicated. The anxiety about money matters acted as an irritant. The result was, *loss of moral control*. Her mind and intellect remained sound for a time, although they may have been weakened. It is quite clear that she was capable of reasoning, but not of regulating her conduct by the conclusions to which the reasoning process led her. It was not that her reasoning was inconclusive, but that her conduct did not follow the direction of her logical conclusions. Popularly she would have been said to be out of her mind.

The following instance of loss of moral control from physical depression, as the immediate cause, is a contrast to the last case:—

A lady asked my advice concerning her daughter, a weedy asthenic girl of fifteen, an only child. The mother was also a nervous person, and the grandfather had been a confirmed hypochondriac. The patient was incapable of much exertion, either mental or physical. Her usual studies soon brought on head-ache. She was irritable and passionate, and her mother complained that she had struck her. Rest, relaxation from study, change of air and scene, quinine, iron, and cod-liver oil soon effected a marked improvement, and the mother's tears at the unnatural conduct of her daughter were changed into smiles when she told me how her child had expressed regret for her past misconduct.

The varying condition of neurosis from moral shock may be advantageously considered with reference to the following simple rules:—

1. The state of depression, and its cause.
2. The source of irritation, physical, mental, or moral.
3. The loss of physical, mental, or moral control, as the effect or result of the two first causes.

Examples. Case I. So-called hysterical coma. Patient a nursemaid. History: Disappointment in love; hard day's work; quarrel with fellow servant. Treatment: Left quite alone. Result: Convalescent next day.

Case II. Insensibility, neuro-muscular irritability, producing disordered motility in the form of strong muscular contraction and convulsive movements. Patient a monthly nurse, age thirty. History: three weeks' fatigue and anxiety in nursing a new-born infant, who died of diarrhoea; insufficient food from loss of appetite. Question of intemperance raised, but disproved. The attack came on suddenly the day of the funeral. Similar treatment; convalescent next day.

The form of attack in this case was convulsive rather than that usually called hysterical. The patient was a widow, without family. She had experienced similar attacks formerly in her married life. Her husband had proved to be insane; but before the insanity declared itself, she had been subjected to much unkind treatment, which could not be accounted for. She had remained free from the attacks for some time until the present occasion.

Both these are instances of physical disorder caused by moral depression and irritation.

Thus, on the one hand, loss of physical power causes a tendency to emotional susceptibility, and, on the other, depressing moral influences lessen the capability for physical exertion, and produce an undue amount of fatigue and exhaustion from insufficient causes; but the more specific effect of this form of neurosis is to lower moral tone and lessen moral control, and the first effects are irresolution or indecision.

Irresolution and indecision do not destroy free will or independent action; but they lessen the power to use and exert both. They not only impart feebleness of action, but tend also to alter the tenour of conduct. The condition of a person under their influence answers the following description:—

“ For to will is present with me,
But how to perform that which is good, I find not,
For the good that I would, I do not;
But the evil I would not, that I do.
Now, if I do that I would not,
It is no more I that do it,
But sin that dwelleth in me.”

It is not my intention to enter upon any question of theology, but only to observe that if the words moral infirmity be substituted for sin, which appears in the context, we arrive at the conclusion that the conduct of the individual under these circumstances is the consequence of the moral infirmity, and not a necessary part of the character of the individual in his integrity; in other words, of imperfect, and not of perfect man. It would be out of place to discuss the question here; I will only remark that it is quite out of the province of a physician to attribute to sin that condition of moral infirmity which is the result of depressed nerve power from emotional causes.

On the other hand, since moral infirmity is, without doubt, one of the effects of neurosis from moral shock, to recognize the fact becomes a duty which the physician cannot ignore, and, to treat it appropriately, a duty which he cannot neglect.

Much confusion has long existed in the mind of the profession on the subject of the disease miscalled hysteria. The process of reasoning by which the name first became affixed, and was afterwards retained, to designate this condition of ill-health appears to be very loose and faulty. Patients who suffered from it had often been known to be the subjects of disappointment. Disappointment in young women is most frequently caused by some love affair; the final cause of love is the reproduction of the species, and the hystera or uterus is the principal organ of reproduction in the female. Therefore, the condition of ill-health, which was consequent upon disappointment, from whatever cause, was designated hysteria! More than this, an illicit process of reasoning in the mind of the physician became confused with the notion of depraved morale on the part of the patient.

Dr. Russell Reynolds dwells upon the importance of cultivating the will in the disease called hysteria; he considers a deficiency of this power to be an element of the disease, and attributes the greater frequency of its occurrence in women than in men to their possessing naturally a smaller amount of this ruling influence. It is not altogether so, and surely he forgets that—

“The man’s a fool who tries by force or skill,
To stem the torrent of a woman’s will,
For if she will, she will, you may depend upon it,
And if she won’t, she won’t, and there’s an end on’t.”

It is not original deficiency of will, but that the will is in abeyance. The effect of disappointment is to take away inducement, and so lessen the inclination and the power to exert the will. The degree of disappointment is in proportion to the amount of reliance which has been placed upon the object which disappoints, the re-action to the extent of hope and trust reposed. The greater the amount of misplaced confidence the more the patient is

—"laid widowed of the power
That bows the will."

If we trace the matter to the root we shall find that the real cause lies, not in the actual deficiency of will, but in the subjective condition of woman which is a part of her nature. "The man is not of the woman, but the woman of the man." It matters not whether pre-Adamite woman existed as well as pre-Adamite man, or whether both or either existed a few thousand years more or less. The subjective condition of woman has been defined, once and for all, in the words—"Thy desire shall be to thy husband, and he shall rule over thee."

Hence it is in the nature of things that woman should trust in man, and in the course of circumstances that she should frequently be disappointed. In a right state of things man fulfils his trust, but when men fail in this particular point of their duty women look out for themselves. They begin to assert, what they call, their rights, but they really seek to pervert a principle of their nature. Two wrongs, the proverb says, do not make one right. Although this principle of woman's nature may be over-looked, or ignored, inverted, or perverted, *it cannot be subverted*, as long as "man is born of woman," and woman is "bone of his bone, and flesh of his flesh." This principle will remain indestructible. Much depends upon the character of the woman, whether she fulfils the indications of her nature, or whether she departs from them; whether she retains the graceful qualities of the typical English maiden, or degenerates into "the fast girl of the period." One advantage of the latter state is that, with fewer feelings to be hurt, and less susceptibility to be blunted, she will probably escape the medical stigma of hysteria, so unjustly fastened upon her more deserving sister.

It may seem unimportant whether a young lady who lies in bed and has not apparently much the matter with her be in

a condition of inability, or only the subject of fancifulness and wilfulness, but it is not so in reality. No two opinions can be more opposite, more irreconcilable, or involve a greater difference in respect of treatment; and the records of the profession can reveal many lamentable instances of mismanagement of such cases. The public would hardly believe that the profession had been so long unable, or unwilling to take the pains to distinguish between the depression which calls for help and encouragement, the disinclination which requires to be overcome, and the wilfulness which deserves correction. It would seem impossible that two or more men holding these opposite opinions should meet repeatedly at the bedside of the same patient, and have no common ground of consultation—that as the case became prolonged and aggravated by the reflected worry of unsatisfactory medical opinion, by the absence of right treatment and in consequence of the want of it, each should become more and more confirmed in his individual opinion, and have ostensible reason for it. Dr. T. K. Chambers remarks—“Many look upon hysteria as an opprobrium medicinæ, which makes them feel the same sort of anger against it as is raised by moral guiltiness, and disposes them rather to punish than to cure.”

But how does the case really stand? The troublesome symptoms are not spontaneous but provoked, the condition is not one of depraved morale, but of lowered moral tone, of aggravated inability, and irritated disability. Illness caused by depressing moral influences calls plainly for elevating moral treatment.

“*Quis custodiet ipsos custodes?*” What is to be done when physicians blame the unfortunate patient for their own want of skill? When they mistake helplessness for moral guiltiness, and seek to punish the patient whom they come to relieve? When with the huge beam of prejudice in their own eye, they cannot see clearly to remove the mote of disorder from their patient’s eye?

Attention to a few simple facts would have saved much suffering to many persons. If the line of demarcation between moral causes and physical effects had been more clearly drawn, we should not in former days have seen the painful spectacle of a highly talented physician attributing the disordered motility of opisthotonic contractions to the passing of a metal, gold or nickel, over the palm of the hand, and the moral obliquity of an ignorant patient would have

met with its true interpretation. It was the last appearance of alchemy on the stage of medicine.

If the pathology of the disease had not been as much at fault as the psychology, we should not read of a lecturer openly declaring to his class of assembled pupils, that a poor girl prostrated by grief, and unrelieved by his own medical advice, had *died of sheer obstinacy*, like Mr. Bumble's pauper.

If the "mental emotions" of the profession have taken a wrong turn, and "assumed a low type" on the subject of hysteria, let the intellect at once disconnect itself from an associate of such unsound principles, and expunge an objectionable term so productive of evil and obstructive to the healing art.

Shakespeare has not overlooked the effects of neurosis from moral shock. Although he has not actually declared or indicated them, they will be found to lie at the root of the conduct of some of his most interesting characters. The great shock which Hamlet received fully accounts for his condition. It would be difficult to say that an intellect so far above the average was affected in consequence, but his moral power was depressed to the level of indecision at any rate. His condition was that of neurosis, and the appearance of insanity, of that unsoundness which consists in the want of uniformity between the conclusions of his reason and his actual conduct, is thus readily accounted for. Tested by this rule the conduct of Ophelia as well as of Hamlet admits of easy explanation. It is not at first sight so obvious, that the intense savagery of Shylock's character does not come out till after the elopement of his daughter, and he, like King Lear, has learned,

"How sharper than a serpent's tooth it is
To have a thankless child."

The quarrel between Brutus and Cassius is a marked instance of the loss of temper ensuing upon moral shock. The circumstance of the sudden death of Brutus' wife does not transpire till afterwards, and Cassius is astonished at a result of which he does not know the cause. He did not know that Brutus could have been so angry. In his *Annals of a Quiet Neighbourhood*, Mr. George Macdonald asks: Is this consistent with the character of the stately minded Brutus, or the dignity of sorrow? Perhaps not, but it is quite consistent with the fallibility of human nature.

The consequences of disappointment as a depressing emotion are very remarkable. It affects men powerfully, as well as women. The minor effects are more common. How often does a disappointed attachment cause a man to rush into a foolish inconsiderate marriage. One peculiar result is that the subject of disappointment goes to bed, and lies there. This fact has not escaped the notice of M. Victor Hugo. In his novel, "*Les Travailleurs de la Mer*," when the Durande was lost, Mess Lethierry, the enterprising owner, went to bed. Mr. Kingslake relates that when the Czar of all the Russias heard of the defeat of his army by the allied forces of England and France at the Battle of the Alma "he obeyed the instinct which brings a man in his grief to sink down, and lie parallel with the earth—he took to his bed."

This is the explanation of what is termed the bed-case, of which Ahab, King of Israel, is the first instance on record; for when he was disappointed of his desire to obtain possession of Naboth's vineyard, "he laid him down upon his bed, and turned away his face, and would eat no bread." However much the conduct of Jezebel on this occasion may appear to illustrate the popular saying that "when women are bad they are very bad," her treatment of the patient was at least judicious, for she listened to his complaint, inquired into the cause, and instituted treatment, which, however wicked and unscrupulous, was undoubtedly successful. Although "her witchcrafts were so many," and her conduct in other respects "altogether abominable," she was, in this instance, true to the instincts of a woman's nature, which have been found to survive and assert themselves after every possible degradation. The subjective nature of woman leads her to rely on man; when that support fails her, and other circumstances contribute to loss of moral control, there is danger of her losing her self-reliance altogether, if she has not higher principles to look to; and this conduct in some instances takes the form of self sacrifice, or abandonment of self. This has the appearance of utter depravity, which is psychologically incorrect.

I have already stated my opinions that this is the true explanation of Lady Macbeth's conduct, and that she, in reality, cared as little for the Crown of Scotland as Jezebel did for the vineyard of Naboth; and this view of self-sacrifice as a characteristic of women under certain circumstances derives confirmation from the following event of modern history:—"Charlotte Marie de Corday was devotedly attached to Henri

de Belzunce, an officer in the French army, who was murdered in the streets of Caen in the discharge of his duty. His body was mutilated, his head carried on a pike. A collision between the regiment of De Belzunce and the populace brought on this catastrophe. Madame Reboulet witnessed Charlotte's intense suffering at the time, her love and her grief; she was silent and self controlled. The event sank deep into Charlotte's heart, and strengthened the detestation with which she regarded those who incited the people to commit such horrors in the name of liberty. Charlotte de Corday saw in the Girondist chiefs, the moderate party, the only hope for France, and the way in which she not only sacrificed her life, but also imperilled her reputation for feminine virtue, to save that faction, is well known." Her self-sacrifice was complete in every respect.

We are so accustomed to associate combustion with high temperature, that we are apt to overlook the smouldering fire, which not unfrequently bursts out quite as fiercely. If we rub chlorate of potash and oxide of silver together in a mortar, there is no need of a spark to cause an explosion, and thus unknowingly, and even possibly with a good motive, the purifying action of good intention may be too rudely or persistently thrust upon the dross of human nature, and an outburst of excited feeling, equally dangerous and fatal as any explosion, will be a very probable result. It is not many years since a man of good family and position, an officer and a gentleman, was shot by an ill-conditioned private soldier, and inconsiderate oppression and arbitrary conduct on the part of the superior was well known to have been the cause of the catastrophe, although the fact did not transpire at the trial.

It is very important to bear in mind the psychological fact, that the state of depression from disappointment, or of oppression from wrong, is peculiarly susceptible of irritation, and that the injured feeling is great in proportion as the relative position of the individual who causes it entitles him to respect and confidence. Under these circumstances, human nature is a very awkward material to meddle with—a fact which those who are fond of inconsiderate teasing would do well not to forget.

It is not very long since society was startled and shocked at the murder of a clergyman by one of his congregation, and the circumstances were the more remarkable, and called the more for explanation, because the man had previously

borne a good character, and was both more moral and religious than the generality. The "mens conscia recti" makes the man "justum et tenacem propositi" all the more apt to resent injustice. He would admit that making love to a servant might be an inconvenient element in housekeeping, but not sufficient reason for separating him from the object of his affections. When disagreement ensued and the girl lost her situation, the lover resented it as a wrong. To make the matter worse, he is said to have been actually taunted with the reproach that the woman of his choice would not demean herself by marrying a man of his craft. Still, he seems to have desired to act rightly, for he not only went to church, but sought to be admitted to its most sacred rite. Here the conduct of the clergyman was most unaccountable, for he told the man, whom he knew personally and had respected, that *he was not fit to enter his church!* In this he undoubtedly not only neglected his duty, but perverted his office; instead of going after the stray sheep, he shut him out of his fold, and the result was he did not "convert a sinner from the error of his ways, or save his soul from death." On the other hand, it is equally impossible to justify the conduct of the criminal; it is quite futile to attempt to institute the plea of insanity, for he knew perfectly well what he was about, that the penalty of the law would be the just consequence of his acts. The definition of his state was not the loss of his mind, or reason, but of moral control as a directing influence. His conduct was that of desperation and recklessness in the mean cause of revenge. The circumstances which combined to produce this result were *irritation supervening upon a condition of depressed nerve power from emotional causes.* "The alleged provocations seem so trivial by the side of a crime so stupendous," the cause so inadequate to produce the result, that we are driven to the conclusion either that the man's condition was unduly susceptible, or that the effects of irritation under like circumstances have been much underrated. The absence of friendly admonition, or of soothing influence on the part of those from whom they might reasonably be expected, is noticeable. We hear nothing of "the soft answer which turneth away wrath," but only of the "grievous words which stir up anger." On the other side, moral control was altogether lost, and with it all guiding principle of action.

Enough has been said to show the importance of studying the effects of neurosis from moral shock. It is equally unphilosophical and wrong to ignore the condition of our fellow

creatures in any respect, or to pooh-pooh complaints because the circumstances attending them are not palpable. Nothing is more dangerous than a wrong wantonly or thoughtlessly inflicted, whether on a nation or an individual. Retribution comes at last. "Nemesis, though lame, overtakes her victim." It is the province of the medical profession to relieve suffering, and much lies in its power to correct the tendency to oppression. It is with the desire of contributing to both these results, to the medico-legal as well as the therapeutic view of the subject, that this essay has been written, and it is earnestly hoped that the instances brought forward will conduce to both these ends.

But a stronger instance than all stands upon record. We see the Prophet Elijah the type of physical strength, when "he girded up his loins, and ran before Ahab to the entrance of Jezreel." We have seen him exercising no mean intellectual power and moral courage in the destruction of four hundred and fifty priests of a popular and corrupt religion. Almost immediately after we see him disappointed, desponding, dispirited, forgetful of the sense of his high calling, cowed by the threats of an unprincipled and unscrupulous woman: in the words of Dean Stanley, "Uttering the despairing cry of many a gallant spirit in the hour of danger and desertion." And what is the treatment he receives at the hands of perfect justice, perfect mercy, perfect knowledge of all truth? No taunt, no reproach, and hardly even reproof; "the still small voice" of conscience awakens him to a sense of duty, and "an Angel touched him, and said, Arise and eat, because the journey is too great for thee."

On Aphasia, or Loss of Speech in Cerebral Disease. By
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(Continued from the *Journal of Mental Science* for Jan., April, and October, 1868).

IN the preceding papers I have endeavoured to review what is at present known of the clinical history of aphasia; having first ventured critically to analyse a certain number of cases recorded by independent observers in various parts of the world, I have then minutely detailed several cases which I have myself had the opportunity of personally watching.

It will be observed that the observations which I have recorded in illustration of my subject have been of the most

varied character—from the typical case where the loss of speech was complete, to that where the loquular defect was only a slight or even an occasional symptom, believing that it is only by the careful study of cases illustrative of the various forms and degrees in which derangement of the faculty of speech is observed that we can hope to throw any light upon this much disputed question—the localisation of the Faculty of Speech.

I shall now proceed to dwell upon certain abstract points suggested by the consideration of the 72 cases to which I have referred in the former parts of this essay. In the first place, it may be said that it is unwise to study aphasia as if it were a malady *per se*; it is clearly only a symptom, and not a pathological entity having a proper place in any nosological classification. Whilst fully admitting this, however, I maintain that, for the purposes of scientific inquiry, it is convenient at present to study loss of speech—as many other investigators are doing—as if it were really a morbid entity; for in many of the cases I have reported it was the sole abnormal symptom present. Besides, the faculty of articulate language is the great distinction which the Creator has made between man and the lower animals; it is one of the highest of human attributes, and there is no subject more worthy of the attention of the philosophical physician than the investigation into the causes which interfere with the proper use of this faculty. I shall, therefore, as it were under protest, and as a matter of convenience, consider aphasia under the various heads of causes, varieties, treatment, &c.

Synonyms.—Few subjects in medical philology have given rise to so much discussion as the name by which loss of the faculty of articulate language should be scientifically designated; a brief allusion, therefore, to the various names proposed cannot be omitted. The term *Anaudia* was used by the Greek physicians for loss of speech, and the adjective *ἄναυδος* is employed by Æschylus.* *Alalia* is used by Sauvages, Frank, and others, and Professor Lordat† in describing his own case employed the word “*Alalie*,” which

* “αἰθερία κόνις με πείθει φανῆσ’,
ἄναυδος, σαφής, ἔνυμος ἄγγελος.”

SEPTEM CONTRA THEB, V. 81.

“Yon’ cloud of dust that chokes the air,
A true tho’ tongueless messenger.”

† “Analyse de la Parole pour servir à la théorie de divers cas d’Alalie et de Paralalie.” 1843.

latter term has also been adopted by M. Jaccoud. In 1861, M. Broca, when relating to the Anatomical Society of Paris his two remarkable cases, which have since excited so much interest throughout the scientific world, used the word "*Aphémie*" (*α φημι*). This last expression has latterly given way to *Aphasia*, a word adopted by M. Trousseau, who is supported in his preference for it by no less an authority than M. Littré.* Other names such as *Aphrasia*, *Aphthongia*, *Aphthenxia*, &c., have been suggested.† *Aphasia*, doubtless from its simplicity and euphony, is now the favourite expression; it is the one I have selected, and in accordance with the neological phraseology of the day, I shall adopt the terms—*Amnesic*, *Ataxic*, and *Epileptiform Aphasia*, &c.

Definition.—The word *aphasia* has been used in a different sense by different authors; some, like Trousseau, Broca, Auguste Voisin, &c., limit its use to designate that condition in which the intelligence is unaffected, or at all events but slightly impaired; where thoughts are conceived by the patient, but he cannot express himself, either because he has lost the memory of words, or because he has lost the memory of the mechanical process necessary for the pronunciation of these words; or because the rupture of the means of communication between the grey matter of the brain and the organs whose co-operation is necessary to produce speech, does not allow the will to act upon them in a normal manner—the ideas are formed, but the means of communication with the external world do not exist. This definition would exclude all cases in which loss or lesion of speech was due to the alteration of the peripheral organs which co-operate for the production of sounds, as well as those in which the embarrassment of speech was attributable to a general lesion of the intelligence, such as idiotism, cretinism, deaf-mutism and the different forms of mental alienation.

I prefer, however, using the word in its strictly etymological

* This word occurs twice in Homer; *Iliad* xvii., 695; and *Odyss.* iv., 704; the text being precisely the same in both instances—"δὴν δέ' μιν ἀμφασίη ἐπέων λάβε;" here speechlessness from emotional causes is evidently implied.

† Dr Popham, of Cork, considers that of all the words in the Greek language denoting modes of speech, the verb *φθεγγομαι* applies more than any of the others to the formation by the tongue of articulate sounds. The substantive *φθεγγίς* is used by Hippocrates, and the privative word *αφθεγγίς* would express an inability to enunciate syllables. He also thinks that the English word *aphthenxia* is as euphonious as many other derivations from the Greek.—*Dublin Quarterly Journal*, Nov., 1865.

sense—a *φασισ*—and I would thus apply it to all cases where speech is abolished or suppressed from whatsoever cause, believing that it is more convenient for the purposes of pathological research, thus to consider lesion of speech in its general and widest sense. This interpretation of the word necessitates divisions and sub-divisions in which all shades and degrees of the affection may be included, and it has enabled me, in the preceding pages, not only to admit cases where the lesion of speech was decided and more or less permanent, but also those where it appeared only as an epiphenomenon, believing, as I have before stated, that such cases may be more useful than the typical cases which are so frequently put on record.

Before alluding to any subdivision of the subject, I would, just for one moment, ask what speech is?

Speech is a complex faculty consisting of two distinct elements, one physical, somatic, and material—a movement; the other psychical, the interior speech—the *λόγος*; and we must take care not to confound this inward with the outward speech or articulation, which is only a form of expression. Here I must remark that it is important not to confound the *faculty of articulate language* with the *general faculty of language*, and Professor Broca's remarks on this subject are so lucid and terse, and of such a philosophical character, that I cannot do better than transcribe them.—“There are several kinds of language; every system of signs which permits the expression of ideas in a manner more or less intelligible, more or less complete, or more or less rapid, is a language in the general sense of the word: thus speech, mimicry, dactylology, writing both hieroglyphic and phonetic, are so many kinds of language. There is a general faculty of language which presides over all these modes of expression of thought, and which may be defined—the faculty of establishing a constant relation between an idea and a sign, be this sign a sound, a gesture, a figure, or a drawing of any kind. Moreover, each kind of language necessitates the play of certain organs of emission and reception. The organs of reception are at one time the ear, at another the eye, and sometimes the touch. As to the organs of emission, they are brought into play by voluntary muscles such as those of the larynx, of the tongue, of the velum palati, of the face, of the upper limbs, &c. Every regular language, then, presupposes the integrity:—1st, of a certain number of muscles, of motor nerves which supply

them, and of that part of the nervous system from which these nerves arise; 2nd, of a certain external sensorial apparatus, of the sensitive nerve which supplies it, and of that part of the central nervous system with which this nerve is connected; 3rd, of that part of the brain which presides over the general faculty of language, such as it has just been defined. The absence or abolition of this faculty renders all kinds of language impossible." *

The elementary form of language which exists from earliest infancy, and amongst all people and races, is gesture; the child points to certain objects and persons, this being a sign of recognition of something that had previously made an impression on the optic nerve—in fact a proof is given of the existence of the faculty of memory; the parent now steps in, and the child is taught to connect certain objects and persons with certain conventional signs or symbols called words, and in order to effect this the auditory apparatus must concur, and speech is the result—the faculty of articulate language is for the first time roused into action.

Certain conditions, however, are indispensable for the development of articulate language:—1st, there must be integrity of thought, or at all events an idea must be conceived; or, as Mr. Dunn elegantly remarks, “must be moulded for expression in the seat of intellectual actions.” 2nd, there must be a connexion between the idea conceived, and the conventional signs or symbols which constitute the verbal forms of language. 3rd, the idea being conceived and the verbal form found, there must be integrity of the commissural fibres and of the motor centres through which the volitional impulses operate in speech, and the muscles of phonation and of articulation must be able to obey the mandates of the will. 4th, it would seem that all these conditions may exist, and yet there may be aphasia or dysphasia. One of my own cases, that of Anna Maria Moore, is a good illustration of this fact; she had plenty of ideas, she knew the symbols which corresponded to them—the representative signs of her thoughts—and the muscles of phonation and of articulation were unaffected, but she seemed like an accomplished musician, who, although accustomed to perform rapid and difficult passages upon his instrument with

* “ Sur le Siége de la Faculté du Langage Articulé,” p. 4.

the greatest ease and without any conscious effort, suddenly finds himself, under certain unfavourable conditions of excitement or from the abuse of alcoholic stimulants, only able to produce discordant strains—there lacks our fourth condition, the master mind, or what has lately been called *the power of co-ordination*.

The child is taught to speak, as he is taught to walk, and he only speaks because he has been taught; what he has learned to do he can forget, and aphasia may be the result of the loss of the memory of the movements necessary for the articulation of words; thus it would seem that one can become aphasic in two ways, either by losing the memory of the symbols of language, or by forgetting the mechanical movements necessary to give expression to such symbols.

Classification.—The various authors who have written on loss or lesion of speech have each adopted a different classification. I have already alluded to the three divisions of Dr. Jules Falret; M. Jaccoud makes five;* Dr. Popham, of Cork, says that two typical forms are to be discriminated—*Lethological or Amnesic Aphasia*, and *Aneural or Ataxic Aphasia*; adding that to these two forms there are cognate states, between which and them it is not easy at times to draw the line of demarcation.† The idea of this division has been further amplified by Dr. William Ogle, in the admirable essay to which I have before alluded, in which he defines by the term *Amnemonic Aphasia* that form characterized by loss of the memory of words—by inability to translate ideas into symbols; but besides this, he says, a second act of memory is required, closely connected with the former, yet distinct from it. “Not only must we remember words, but we must also remember *how to say them*. The mere memory of words by itself may produce an inward repetition or mental rehearsal of a phrase, but it can do no more; for the utterance of the phrase in articulate sound this second memory is absolutely requisite.” To the failure of this second memory Dr. Ogle gives the name of *Atactic Aphasia*, adding that the loss of speech is due to the want of the co-ordinating power over the muscles of articulation.‡

At the annual meeting of the British Association, held in

* “Gazette Hebdomaire,” 1864.

† “On Aphasia,” p 5.

‡ St. George’s Hospital Reports, Vol. 2, 1867, p 95.

Norwich last summer,* Professor Broca, in proposing the adoption of a more precise terminology for expressing the various forms of defective speech, suggested the following divisions:—*Alogia*, loss of speech from defective intelligence; *Amnesia*, from defective memory of words; *Aphemia*, from a defect in the special faculty of language; and *Alalia*, from defective articulation.

Although I have found it useful to adopt the terms *Amnesic* and *Ataxic Aphasia* in the description of my own cases, I do not wish to fetter myself with any system of classification, which must, to a certain extent, be artificial; I propose, however, under the head of “*Varieties*,” to mention the principal forms of the affection which are most commonly met with by the clinical observer.

Varieties.—There is a great diversity in the particular type or form in which lesion of speech may shew itself, for as it is a symptom and not a malady *per se*, we cannot expect to find the same uniformity in its manifestation as is to be met with in the description of a specific and well characterized disease; having no uniform cause, it has no regular stereotyped march, being only a secondary pathological phenomenon, the result of single or multiple organic lesions.

1.—It may differ in degree, from absolute speechlessness to various grades of imperfection in the use of the faculty of language; it may be an ephemeral and intermittent symptom, or it may be a permanent defect.

2.—Some persons have only lost the power of saying their own name (Crichton), or the names of other people; it is not uncommon to find persons whose conversation is perfect with the single exception that they cannot evoke or call up in their mind certain individuals—they lack the symbol necessary to convey the idea; it may perhaps be said that this

* One of the most interesting features of this meeting—at all events, to the medical profession—was the discussion which followed the reading of papers on Aphasia by Dr. Hughlings Jackson, Mr. Dunn, and M. Broca. The learned Parisian Professor, with great force and eloquence, expounded before a British audience, his own peculiar views as to the seat of speech, illustrating his remarks by a coloured diagram, and a plaster cast. A most animated debate ensued, in which Professor Hughes Bennett, Professor Humphry, Dr. Crisp, Sir Duncan Gibb, Professor Carl Vogt, and others took a part. It may be said of this discussion—*Tot homines tot sententiæ*.

defect is only one of the signs of senile decay—of the failing memory of elderly people; this view, however, does not furnish any explanation of the fact of the defect being limited to proper names; besides, this form occurs in others than in elderly people.

3.—In another variety the defect applies to substantives generally, as was observed in the man Sainty whose case I have myself recorded; I have also given several other instances of it in the preceding pages (Bergmann, Graves, &c.); and in many of these cases, the defect is supplied by a paraphrase, as was observed in Dr. Bergmann's case, where the patient being unable to say scissors, said *it is what we cut with*. It is indeed singular that substantives and proper names which are first acquired by memory in childhood should be sooner forgotten than verbs, adjectives, and other parts of speech which are of a much later acquisition. In noticing this peculiarity, Dr. Osborne offers as an explanation, that nouns are less frequently repeated than verbs or prepositions, which, being in use on every topic which can form the subject of discourse, are retained, when the names of general topics as nouns, or of individual topics as proper names, are forgotten.* In further illustration of this variety I would refer to a case reported by M. Piorry, in which an old priest, after an attack of dextral paralysis, had entirely lost the faculty of employing substantives; the manner in which he expressed himself was most curious—for instance, if he wished to ask for his hat, this unfortunate word hat failed him entirely, and he made use of verbs, pronouns and adjectives in order to render his idea. “Donnez-moi . . . ce qui se met sur la . . . mais le mot tête ne lui venait pas; il cherchait vingt fois à exprimer sa pensée, et la chose lui présentait une difficulté insurmontable.”†

Perhaps one of the most curious forms in which imperfection of speech shews itself, is where the defect is limited to some particular language; thus Dr. Beattie (quoted by Dr. Scoresby Jackson) mentions the case of a gentleman, who, after a blow on the head, lost his knowledge of Greek, and

* “On the Loss of the Faculty of Speech.” Dublin Journal of Medical Science, Nov., 1833. This, after Crichton's, is one of the earliest memoirs on our subject which have come under my notice, and contains several highly interesting and well recorded cases.

† Gazette des Hôpitaux, May 27, 1865. At the autopsy of this patient, M. Piorry found in the anterior part of the left corpus striatum three apoplectic cysts.

did not appear to have lost anything else. Dr. S. Jackson asks—where was that gentleman's Greek deposited, that it could be blotted out by a single stroke, whilst his native language and all else remained ?*

4.—In another class we find patients substituting one word for another ; thus Crichton's patient would ask for his boots when he wanted bread ; the gentleman whose case was observed by Sir Thomas Watson, would say "pamphlet" for camphor ; and in one of my own cases—that of C M—the patient would say "poker" when he meant the fire. In this erratic speech the defect is sometimes limited to the substitution of one letter for another, as in a case quoted by Crichton, where, after recovery from a fever, one of the first things the patient (a German) desired to have was coffee (kaffee) ; but instead of pronouncing the letter f, he substituted in its place a z, and therefore asked for a cat (kazze), and in every word which had an f, he committed a similar mistake, substituting a z for it.† Dr. Popham, of Cork, cites a similar example.

5.—A certain number of aphasics use stereotyped phrases, always the same, in answer to every question—thus we have seen in one of Trousseau's cases, that the patient thus addressed, invariably replied "*n'y a pas de danger* ;" in Hasbach's case the phrase "*gerechter Gott*" was the only one at the command of the patient ; others can only pronounce certain monosyllables—in one of Professor Broca's cases the word "*Tan*," and in one of M. Charcot's the word "*Ta*," composed the entire vocabulary of the respective patients ; and in one of Dr. S. Jackson's, of Pennsylvania, we have seen that the patient who was totally deprived of articulate speech, could write only the unintelligible phrase, "*Didoes doe the doe*." In many of these cases the play of the physiognomy shews that the sense of a question is perfectly understood by the patients ; they have not lost the general faculty of language, for they understand written and articulate language when spoken by others ; they preserve even the sense and the value of words, both in the auditive and graphic form ; what is wanting in them is not the concurrence of the nerves and muscles engaged in phonation and articulation—

* "Edinburgh Medical Journal," February, 1867.

† "An Inquiry into Mental Derangement," Vol. i., p, 373.

for they can pronounce certain syllables spontaneously, and can sometimes repeat what is said to them—there is, however, wanting a particular faculty which we may call the faculty of articulate language; or, according to some authors, the faculty of co-ordinating the movements necessary for the production of articulate language is deficient.

A modern French philosopher, Paul Janet, mentions the case of an old priest who was incapable of pronouncing distinctly two words having any sense—c'était à peine un bégayement; if, however, an appeal was made to his verbal memory, he could recite the fable of La Fontaine, "*Le Coche et la Mouche*," or the celebrated exordium of Father Bridaine, and this he would do with the most perfect distinctness of articulation, although he was evidently incapable of understanding a single word of what he said. In this case, says Paul Janet, the mnemonic mechanism had remained sound at a particular point, which only required stimulation to make it act.*

6.—In another variety there is a remarkable perversion of speech; patients can articulate, but there is no connexion between the articulated sounds and the ideas which they may wish to convey. In illustration of this form, Dr. Osborne has related the history of a gentleman, who, after recovery from an attack of apoplexy, had the mortification of finding himself deprived of speech, or rather he spoke, but what he uttered was quite unintelligible, and his extraordinary jargon led to his being treated as a foreigner in the hotel at Dublin, where he stopped. In order to ascertain and place on record the peculiar imperfection of language which he exhibited, Dr. Osborne put before him an English sentence with the request that he would read it, when he read as follows:—"An the be what in the temother of the trothotodoo to majorum or that emidrate ein einkrastai."†

7.—The loss of speech may be the sole morbid symptom, or it may be accompanied by some paralytic symptom. A recent writer on nervous diseases, Dr. Wilks, has stated that pure

* "*Le Cerveau et la Pensée* par Paul Janet, Membre de l'Institut." p. 140. This highly philosophical treatise contains much original matter, and is well worthy of a careful perusal by all medical psychologists who are endeavouring to trace the connexion between thought and speech.

† Osborne, op. cit., p. 160.

aphasia without paralysis is uncommon.* My own observation and researches do not lead me to endorse this opinion, and amongst the 72 cases I have recorded, it will be observed that in a large number the impairment of speech was the only sign of diseased action (vide Andral, Broca, and Dr. S. Jackson, of America). One of the most remarkable instances of this variety was that recorded by Trousseau when speaking of the aphasia of his colleague, Professor Rostan. This case is of such value from the fact that the subject of it had devoted a long life to the investigation of cerebral disease, and consequently was so well qualified to appreciate, and accurately to describe the symptoms he experienced in his own person, that I shall transcribe it here.

“Dr. R——, being confined to his house from the effects of an accident, had been reading nearly all day, and had thus fatigued his brain. He was engaged in reading one of Lamartine’s literary conversations, when, all on a sudden, he perceived that he imperfectly understood what he was perusing. He stopped a moment, then resumed his reading, but again experienced the same phenomenon. In his alarm, he wished to call for assistance, when, to his great astonishment, he found himself unable to speak a word. He now fancied himself the subject of apoplexy, and he immediately caused his arm and legs to execute various complex movements, and found there was no paralysis. Being alone, he rang the bell, and when his servant came, he found he could not speak a word. He moved his tongue in all directions, and was struck with the strange contrast which existed between the facility of movement of the vocal organs, and the impossibility of giving expression to his thoughts by speech. He now made a sign that he wished to write; but when pen and ink were brought—although he had the perfect use of his hand—he found himself quite as unable to give expression to his thoughts by writing as by speaking. On the arrival of a physician, at the end of two or three hours, Dr. R—— turned up his sleeve, pointed to the bend of the elbow, and clearly indicated that he wished to be bled. Venesection was hardly finished, when a few words could be uttered; by degrees the veil seemed to be removed, and at the end of twelve hours speech

* “On Aphasia and the education of the Cerebro-Spinal Centres.” *Med. Times*, January 18th, 1868—“When paralysis exists, we believe that some portion of the motor tract must be affected, and that this need not arise from a local lesion of the cortical substance; consequently it might be thought possible for hemiplegia to occur without loss of speech and *vice versa*, but I cannot find this is the case.” Further on, Dr. Wilks says, “believing as I do that aphasia is almost invariably found with hemiplegia.” It is with great diffidence that I venture to criticise the opinion of so eminent an authority as Dr. Wilks; but the above statement is so utterly at variance with my own experience, that I cannot allow it to pass unnoticed.

was entirely restored, or, to use Professor Trousseau's emphatic language, "*tout était rentré dans l'ordre.*"*

A striking example of aphasia without paralysis was published by M. Ange Duval in the "*Bulletin de la Société de Chirurgie*" for 1864; the subject of it being a lad five years of age, who fell from a window upon his forehead; the result of the fall being a fracture of the frontal bone on the left side. The intelligence of this child continued unaffected, and there was no paralysis, but he never uttered another articulate sound. This boy was accidentally drowned thirteen months after his fall, when an examination of the encephalon disclosed a cyst, of the size of a walnut, which was full of serum, and was evidently the result of a former contusion of the left frontal lobe; this cyst was situated principally in the *third left frontal convolution*.†

8.—The defect may be limited to the loss of articulate language only, or may extend to written language, and also to the language of signs. One of these faculties may be destroyed whilst the others remain intact. It would seem that loss of speech more commonly coincides with loss of the power of writing; this, however, is not invariably the case, and Dr. Wm. Ogle has recorded a case of dextral paralysis in which the speech was limited to the two words "yes" and "no," but the power of writing, with the left hand, remained in its integrity. Trousseau records a similar case of a man who, in coming to consult him, informed him by signs of his inability to speak, but gave him a note, written in a firm hand by himself, in which was contained a detailed account of his disorder; from this note M. Trousseau learned that some days previously he had suddenly lost consciousness, on recovery from which there was no symptom of paralysis, but he found himself unable to articulate a single word.‡ Dr. Ogle considers that the occasional separation of *agraphia* and *aphasia* is an argument in favour of the existence of distinct cerebral centres for the faculties concerned in speaking and

* "*Clinique Médicale*," tom. ij, p. 573.

† The details of this case are given at great length by M. de Font-Réaulx in his thesis for the Doctorate at the Faculty of Medicine of Paris, 1866. It seems that the localization of the faculty of speech has been a subject frequently selected of late for a thesis by graduates of the Paris Faculty. Among the most remarkable, I would mention those of M. de Font-Réaulx and of M. Carrier, both of which have furnished me with interesting matter.

‡ "*Clinique Médicale*, tom. j., p. 615."

writing; while the more frequent coincidence of the two would lead him to infer that these distinct centres must be closely contiguous.* The power both of speaking and writing spontaneously may be suspended, and yet the faculty of imitation may be so well developed that words can be repeated and even written without difficulty when they are pronounced by another person.†

In reference to the language of signs and of pantomimic expression, it is more commonly unaffected. In most of the recorded cases the power of communication by signs is not mentioned at all. Lelong, the subject of one of Broca's celebrated cases, could make himself entirely understood by his expressive mimic; I have recorded the same fact in the history of my patient Sainty. Sometimes, pantomimic language, without being abolished, is wanting in precision, or is perverted, as was observed by Dr. Perroud of Lyons, whose patient would make a sign of affirmation when she meant the contrary.‡

Sometimes the faculty of imitation is exaggerated to an extraordinary degree, when the phenomenon is produced which Romberg calls the "echo sign." During a recent visit to La Salpêtrière, Dr. Auguste Voisin kindly called my attention to a remarkable instance of this form then in one of the wards. The subject of it was a woman, aged 56, who had right hemiplegia with aphasia, and who, although she never spoke, repeated all that was said—for instance, Dr. Voisin addressed her thus, "Voulez vous manger?" She said, instantly, "Voulez vous manger?" I then said to her, "Quel age avez vous?" She replied, "Quel age avez vous?" I then said to her in English, "You are a bad woman." She instantly said, "You are a bad woman." I said, "Sprechen sie Deutsch?" She retorted, "Sprechen sie Deutsch?" In the words that she thus echoed, her articulation was distinct, although the foreign phrases were not repeated by her in quite so intelligible a manner as the French. Not only did this woman echo all that was said, but

* St. George's Hosp. Rep., Vol. 2, 1867, p. 100.

† Sir Thomas Watson has kindly communicated to me the particulars of a case of dextral paralysis, with not only loss of the power of speaking and writing, but the patient had forgotten her letters, and could not pick out an s or an n in a child's alphabet. This I believe to be an unusual condition, for in most cases the symbol representing a word is recognized when put before the patient; that is when, as in Sir T. Watson's case, the intelligence is unaffected.

‡ De Font-Réaulx, op. cit. p. 57.

she imitated every gesture of those around her. One of the pupils made a grimace; she instantly distorted her facial lineaments in precisely the same manner; another pupil made the peculiar defiant action, common in schoolboys, of putting the thumb to the nose and extending all the fingers—called in French, *pied de nez*. The patient instantly imitated this elegant performance. Just as we were leaving her bedside, a patient in an adjoining bed coughed; the cough was instantly imitated by this human parrot! In fact this singular old woman repeated everything that was said to her, whether in an interrogative form or not; and she imitated every act that was done before her, and that with the most extraordinary exactitude and precision. Dr. Winslow, under the head of *Morbid Imitation Movements of Articulation*, remarks that he has often observed this echo sign at the commencement of acute attacks of disease of the brain, particularly of inflammatory softening; this condition was observed after death in a case reported by Romberg.*

When all other forms of language are either suspended or perverted, there may still remain one, which is the same in all countries and among all people—the language of physiognomy: the aphasic may still evince pleasurable sensations by a smile, give evidence of fear by pallor of the countenance, and of shame by the blush on the forehead, “*Sæpe tacens vocem, verbaque vultus habet.*”†

9.—There is a variety of aphasia characterised by this peculiarity—that although the subjects of the affection can articulate nothing else whatever, they can give vent to an oath, and thus, in the heat of passion or excitement, words or phrases not always correct as regards taste or ethics, are ejaculated, and which the patient is wholly unable to reproduce when the stimulus of emotion is wanting. I have already incidentally alluded to a case of Dr. Hughlings Jackson, in which the patient had recovered the power to swear, although continuing aphasic. Dr. Gairdner mentions the case of a patient in the Edinburgh Royal Infirmary whose sole means of communication with others was by signs.

* “Diseases of the Nervous System,” Dr. Sieveking’s Translation. Vol. ii, p. 431.

† This language of physiognomy has not been sufficiently considered by writers on the localisation of the cerebral faculties. This subject is fully developed by M. Albert Lemoine in his philosophical treatise entitled *La Physionomie et la Parole*, Paris, 1865.

After a time, Dr. Gairdner noticed that the other patients believed he was shamming, and on inquiry, they gave as a reason for their opinion, that he could swear. The man shortly afterwards died suddenly, when his brain was found to be the seat of a large number of minute deposits of cancer.*

Dr. Hughlings Jackson hints that these oaths and interjectional expressions as observed in aphasic patients, may be due to reflex action, and he goes on to say: "It is quite obvious that they are not voluntary, as the patients cannot repeat the phrases. The will cannot act, but somehow an emotion, e.g., anger, gets the words passed through the convolution of language. Just as a paralysed foot will jump up when the sole is tickled, so these words start out when the mind is excited. Such ejaculations seem to have become easy of elaboration by long habit, and require but slight stimulus for perfect execution."†

10.—*Aphasia spasmodica*. Spasmodic mutism occurs in connexion with hysteria and in hypochondriasis, and may be of a more or less persistent character. Dr. Bright has recorded two cases in which the inability to speak coincided with hysterical trismus.‡ A similar case was lately under my observation, the subject of it being a girl eleven years of age, who after exposure to cold and damp, was brought to the hospital, because her mother found she was unable to speak. On examining her, it was found that there was a forcible closure of the lower jaw, but the moment the mouth was pressed open, she could speak as before. Dr. Todd, in speaking of an analogous case, uses the word catalepsy in his description of it. Dr. Willis mentions a curious case of this kind, which he calls "paralysis spuria." His description is so quaint that I am tempted to transcribe it:—

"Curo jam nunc foeminam prudentem et probam, quæ per plures annos hujusmodi spuria paralysi non tantum in membris sed etiam in linguâ obnoxia fuit; hæc per tempus quoddam libere et expedite satis loquitur, post sermones tamen longos, aut illos festinanter et laboriose prolatos, illico sicut piscis obmutescens, amplius ne *gry* quidem proloqui potest,

* "On the Function of Articulate Speech," p. 14.

† London Hospital Reports, Vol. i, p. 454.

‡ Bright's Reports of Medical Cases, Vol. ij, part 2, p.p. 459 and 460.

porro nec nisi post horam unam, aut alteram vocis usuram ullam recuperat.”*

Having thus briefly alluded to the principal forms in which loss or lesion of the Faculty of Articulate Language is met with in practice, I propose, in the next number, to consider Aphasia in reference to its Cause, Diagnosis, Prognosis, and Treatment.

(To be continued).

A Case of Cerebral Meningitis. By G. MACKENZIE BACON, M.D., Medical Superintendent of the Cambridgeshire Lunatic Asylum, Fulbourne.

The subjoined case owes its chief interest to the question of diagnosis involved in its consideration. The outline of the case is as follows:—

William G., æt. 57, single, labourer, admitted into the Cambs. Asylum, Aug. 10, 1868. He was said to have had a previous attack of insanity at the age of 22, but to have kept well till within a few days of his admission, when he became noisy and excited. It was also stated that he had had four epileptic fits, but at long intervals.

When admitted he was in a state of restless delirium, talking incessantly and incoherently, undressing himself, and wandering about the ward. He was a good sized man, apparently aged from hard work, and his back somewhat bent. He was ordered an opiate, and brandy and beef tea, but was fed with the greatest trouble, resisting all efforts in a sort of blind fury, without any particular object.

Aug. 14.—Continues much excited, talking incessantly, rolling on the floor, and in constant motion. He lay in bed last night repeating continually certain words and movements, and rubbing the skin off his back against the bed; he was packed in wet sheets and 40 minims of Battly were given in brandy, after which he went to sleep in ten minutes, and rested several hours.

The next day was in the same state of restless excitement and chattering. Ordered a dose of calomel, and to take half a drachm of tinct. digitalis three times a day. He became more quiet after this treatment and had some glimmering of reason, and also took some food more readily. Subsequently he got weaker, and died on the 21st

* Op. T. Willis, M.D., *De Paralysi, De animâ Brutorum*, cap. ix, p. 149.

August. The delirium maintained the same character to the end, though in less force, and he seemed partly to recover his consciousness at times, but his condition never changed essentially.

Post-Mortem.—The thoracic viscera were healthy, and there was nothing amiss in the abdomen beyond adhesions of the liver on its anterior surface. The skull was unusually thick over the frontal region, but there was no sign of injury to the bone in any part. On removing the dura mater, a layer of thick greenish lymph was exposed, covering the left hemisphere only, and extending over the middle fossa of the base of skull to the foramen magnum. The pia mater peeled off easily and the subjacent convolutions were generally shrunken. The meningitis was confined to the parts mentioned, and the cerebral substance appeared healthy to the naked eye.

REMARKS.—As a case of meningitis, the above is not very remarkable, but the fact of the patient being sent to an asylum in consequence of some of the symptoms, leads one to ask (*after the post-mortem*) how it ought to be considered as a whole? Was the meningitis the sole and original disease, or was the mania the first, and the inflammation of the membranes a secondary condition? This is not an unimportant question as affecting the social interests of patients, for many people might consider themselves much injured by being treated in an asylum for delirium consequent on a brain disease.

One reads of a German psychologist being sent to an asylum as insane when ill of typhus, and mistakes have been made as regards delirium tremens, but there is some allowance to be made for such errors. Diagnosis is not always as easy as it appears in books, and, in the case I have related, the signs ordinarily relied on as distinctive were not present. An asylum physician, indeed, has, in one sense, the diagnosis ready made, as the fact of a patient being sent to him is presumptive evidence of the existence of mental disease, as distinct from a mere bodily ailment, and he may, therefore, be thrown off his guard; but, supposing every care taken, I think in such a case as this the diagnosis could not easily be made. The patient was admitted in a state of acute excitement, *had been insane earlier in his life*, and was not in a state to give any information as to his bodily condition or sensations. The orthodox headache, vomiting, intolerance of light, &c., were absent, and in default of any clinical history of his few days' illness, it would hardly occur to any one to suspect a severe meningitis. Griesinger, in his "Mental diseases," speaking of diagnosis says, "Acute

meningitis, with strong inflammation at the convexity, is manifested by violent headache, vomiting, ordinary delirious excitement, convulsive appearances, changes in the pupils ; it is always accompanied by high fever," &c. ; and adds, "Now and then recent and rapidly fatal cases are actually brought to asylums as cases of mania." Griesinger's description in no way suits the case I have given, but his latter remark may apply more closely. For my own part I can only say I treated the case as one of acute mania, without suspecting one-sided meningitis, and have no anxiety to defend or excuse my opinion, but I think the case is very instructive in a clinical point of view, and for that reason worth recording.

On the present State of our Knowledge regarding General Paralysis of the Insane. Part II. By Dr. C. WESTPHAL, Physician to the Lunatic Wards of the Charité, and Lecturer on Medical Psychology in the University of Berlin. Translated from the German by James Rutherford, M.D., F.R.C.P. Edin., Assistant Medical Officer, Borough Lunatic Asylum, Birmingham.

(From *Griesinger's Archiv für Psychiatrie*, No. I. ; concluded from the *Journal of Mental Science* for July, 1868., p. 192.)

The theories which have hitherto been advanced regarding the nature of the morbid process in general paralysis of the insane are based essentially on actual or supposed anatomical changes in the brain and its membranes. The spinal cord was, as a rule, very seldom examined. In the many records of *post mortem* examinations which have been published, it is scarcely ever referred to ; and only in a few isolated, carefully-observed, and well-described cases (especially by H. Hoffmann), which remain almost unnoticed, has—if we exclude the uncriticisable cases of "softening"—any palpable disease of the spinal cord been established. Thus it came to pass that in the framing of theories regarding the nature of the paralysis, the spinal cord was either entirely ignored, or the purely *cerebral* character of the disease was expressly and emphatically inculcated as distinguishing it from other *spinal* affections.

It must be admitted that the assumption has already been made by Joffe,* that in all cases of general paralysis of long standing, if the spinal cord be minutely investigated, morbid conditions (new formation of connective tissue) of the spinal marrow will be found to exist, but it is not made manifest in how far this general statement is justi-

* Zeitschr. der Gesellsch. der Aerzte 24 Wien. 1860. Nr. 5, p. 74.

fied by the results of actual observation. In the cases adduced, he only once makes mention of that condition of the spinal marrow—minute details are omitted. Nevertheless, the merit of having first directed attention, in a general way, to the occurrence of disease in the spinal cord in general paralysis is incontestibly due to Joffe. His observations, however—perhaps for the very reason that they were not supported by special observations—remained absolutely unheeded. The great majority of asylum physicians examined the spinal cord no more frequently than formerly; the motory disorders continued to be referred to changes in the brain, and the theory of the disease remained the same. Diseased conditions of the spinal cord are now, however, as I think I have shown,* quite common in general paralysis of the insane, and may be considered as amongst the best constituted facts. In so far as they have as yet been observed, these affections present various forms and degrees; sometimes the membranes are involved, sometimes they are not.

On the dura mater inflammatory processes are occasionally observed (pachymeningitis, also of a hæmorrhagic character). Affection of the pia mater is recognised by general opacity and thickening of its tissue: thickened bands and retiform lines are also frequently seen projecting from its surface, and, moreover, filiform or more membranous adhesions pass between it and the dura mater. In regard to the disease of the spinal cord itself, there may be distinguished, anatomically, the following forms:—1st. Affection of the posterior columns throughout their whole length from the cervical to the lumbar regions. 2nd. Affection of the posterior section of the lateral columns likewise throughout their whole extent. 3rd. Mixed affection of the posterior columns, and of the posterior portion of the lateral columns. The isolated affection of the posterior columns assumes a form somewhat different anatomically from the other varieties. It consists in a considerable loss of nerve elements (atrophy), in the place of which there has entered a connective tissue-like substance, which is sometimes plainly seen, when longitudinal sections are made, in the form of completely developed fibrous connective tissue. When transverse sections are made, it is seen that this connective tissue lies imbedded here and there in irregular plates, of larger or smaller size, between the transverse sections of the nerve tubes. Where the process is further advanced these plates unite with each other, so that when still further advanced, merely a connective tissue-like substance is apparent, in which here and there the transverse section of an isolated nerve tube may still be seen. The nerve tubes themselves appear partly very small, partly of ordinary diameter, and occasionally very broad. Atrophy and hypertrophy of the nerve tubes have therefore been spoken of; but this point demands further investigation, as, even

* Virchow, Arch. Bd., 39 u 40. Compare also Allgem. Zeitschr. für Psych. XXIII., p. 709; XX., p. l.c., XXI., p., 361 u 450. More recently Magnan (l.c.) has also recognised affections of the spinal cord.

in the normal spinal cord, considerable differences occur in the diameter of the nerve tubes. The mode of preparation (for example, unequal hardening) also plays a part. I consider, therefore, that this question is not yet fully elucidated.

The process is usually most markedly developed at the periphery of the posterior columns, especially in the region of Goll's tracts; but there occur many kinds of irregularities, in particular the parts at the side of the middle portion of the posterior longitudinal fissure are often strongly affected. By comparing the superior and inferior portions of the spinal cord in regard to the intensity and extent of the disease, no constant distinctions can be made out. Nevertheless, in the cervical portion very frequently Goll's tracts only are affected, while in the dorsal and lumbar portions the changes extend over the whole area of the posterior columns. The most anterior portions of the posterior columns situated next to the posterior commissure always remain most intact. Such are the appearances presented after hardening of the spinal marrow. In fresh preparations matters appear differently, inasmuch as, in some cases, numerous fat cells may be observed free and upon the walls of the vessels, while in others—in other respects not distinguishable from the first—the fat cells are altogether absent. Further, there is observed, though relatively seldom, a great number of pale cellular elements containing nuclei, and very frequently numerous corpora amylacea.

The picture assumes a different appearance in the second and third modes of development—viz., with affection of the lateral columns, and of the lateral and a portion of the posterior columns. Here there are always found, in fresh conditions, free nucleated cells lying in the tissue. In hardened preparations the individual nerve tubes containing nerve substance, or groups of these, are seen to be surrounded by diffused lines of connective tissue, which, as a whole, present the appearance of a network with knotted points. The lines of the network are much broader than those which in normal conditions surround the individual nerve tubes, and its meshes are occupied sometimes by one, sometimes by several transverse sections of nerve tubes, containing nerve substance. In the knotted points just mentioned, nucleolar structures are occasionally distinctly observed which extend also into the lines of the net. This picture differs distinctly from that first described (grey degeneration), through the appearance and preservation of the reticular outline, the absence of the large irregular plates of connective tissue, and the constant presence of nucleated cells. I, in accordance with the dominant appearances, characterise this form as *chronic myelitis*. If the lateral columns only are affected, the disease is always confined to the posterior section, and it diminishes towards the lumbar portion, so that there only the parts in the neighbourhood of the apex of the posterior cornua are usually attacked. In the cervical portions the change either affects the entire posterior section of the lateral columns, or it is limited to one locality, corresponding to

the angle between the anterior and posterior cornua and along the latter. In the dorsal portion the change appears (the number of the nucleated cells) in general to be most pronounced.

If the posterior columns, and the posterior section of the lateral columns, are simultaneously affected,* the latter are found to be, in regard to the relative extent of the disease upwards and downwards, as has been described. The posterior columns are, on the contrary, generally affected only from the cervical to a division of the dorsal portion, and occasionally in such a manner that again in the cervical portion Goll's tracts, and in the dorsal portion the whole extent of the posterior columns are involved. From this point downwards the disease of the posterior columns diminishes, and frequently the parts situated nearest to the posterior longitudinal fissures are the first to become free. Occasionally, however, only the *cervical portion* of the posterior columns is affected. In the cases which I have hitherto carefully investigated, the mode of extension of the disease was confined to the way we have just mentioned. It is nevertheless certain, as I can affirm after the experience of further recent cases, that still other combinations occur. Even in the affection of the posterior and lateral columns just described there were also found here and there nucleated cells in the *anterior columns*. In the cases, however, which have recently come under my notice, the latter were strongly involved, and the affection of the posterior columns descended further. I have not as yet been able to undertake a more minute investigation of these cases.

I either did not find the appearances of grey degeneration (atrophy) as seen in isolated affection of the *posterior columns* in the forms classed under 2 and 3, or merely found traces of them in circumscribed spots.

It is an interesting fact that the degeneration may be followed still farther through the medulla oblongata. The affection of the posterior columns terminates very soon, and does not extend beyond the commencement of the 4th ventricle. It can be shown in the expansions of the slender tract that the grey substance radiating there (*mediales hinteres nebenhorn*, *Reichert*) is not involved. The disease of the lateral columns may be traced by means of the nucleated cells through the decussation of the pyramids, the pyramids, and the longitudinal fibres of the pons Varolii to the foot of the cerebral peduncle, the external section of which will be affected by it.

To these facts is immediately associated the question whether there exists a direct connection between the pathological conditions of the spinal cord and of the brain. Such a connection has not yet been anatomically demonstrated. The nucleated cells are not found beyond the foot of the peduncles of the cerebrum, not in the inner capsule,

* Perhaps Calmeil, in a few of the cases described by him in which he examined the spinal cord, has also seen the nucleated cells, although, for the forementioned reasons, he could not well form an opinion regarding them.

the grey substance of the lenticular bodies, corpus striatum, thalamus, &c. In my investigations I have not, as yet, discovered anything which seemed to deviate from the normal condition in these parts; and, in particular, no changes of the ganglia of the nerves. This, nevertheless, is saying very little if the difficulty of investigating the grey substance of these portions of the brain be borne in mind. Almost each portion would require to be made the subject of special study before any authoritative opinion could be given. One might, perhaps, on first thoughts, expect to find an affection of the parts we have mentioned (internal capsule, &c.,) in cases of disease of the lateral columns extending into the peduncles of the brain. A comparison with cases of so-called secondary degeneration of the spinal cord from primary cerebral apoplexy, shows that the disease pursues exactly the same course through the medulla oblongata and spinalis in both circumstances; then, also, in cases of apoplexy and softening affecting the inner capsule, the lenticular body, &c., it is in the pyramids and posterior of the lateral columns that the formation of nucleated cells takes place (Türk). The idea that in general paralysis we have likewise to do with an affection of the brain, which produces a secondary disease of the spinal cord, extending *downwards*, may, for the present at least, and until further investigations are instituted, be abandoned, as no evidence in favour of it exists. On the contrary, the degeneration of the *posterior columns* in its form and mode of development (diminishing towards the cervical region), reminds us very much of cases in which a primary disease extending from the lumbar region *upwards*, must be assumed (as in certain cases of grey degeneration of the posterior columns in persons not insane), or of cases where, in consequence of *localized affection* of the spinal cord (from compression in consequence of tumours, &c.,) disease of these columns extending upwards is met with. Still, as we have just seen, even in such cases, no extension beyond the medulla oblongata, either towards the cerebrum or cerebellum, could be demonstrated. There is nothing, therefore, in the meantime, to justify the assumption of a direct continuation of the pathological process into the brain.

Neither do the *symptoms observed during life* necessarily point in that direction. Here the leading question must be regarding the order of succession of the symptoms of the cerebral and spinal affections, and in how far these symptoms indicate an ascent of the malady to or descent from the brain. There are now on record whole series of cases in which manifest and undoubted *spinal* symptoms *preceded* the cerebral. These comprehend all those, who, years before the outbreak of a cerebral affection, presented well-marked symptoms of Tabes Dorsualis, including the characteristic gait, which can be referred to no other than a spinal affection. It must be admitted that here, at an early period of the disease and before any psychical anomalies show themselves, symptoms frequently appear which might be considered due to a cerebral malady of longer standing than the spinal

affection; for example, occasional incomplete paralysis of certain muscles of the eye, and more or less pronounced atrophy of the papilla of the optic nerve. We have, nevertheless, no satisfactory grounds for referring these affections of individual cerebral nerves *per se* to a central malady of the brain; pathological anatomy, in particular, offers in this respect merely negative results. There might easily be some exclusively peripheral affection of these nerves, to which, perhaps we might refer a state of atrophy; but, on the other hand (in the incomplete and transitory paralysis of the muscles of the eye) no palpable lesion can be discerned.

In those cases, also, where decided cerebral symptoms (psychical disorder) do not appear until after an undoubted spinal affection has existed for a long time, we have every reason to regard the disease of the spinal cord as the *primary* affection. If it be further admitted that in those cases where the lower extremities are affected by the motory disorder before the upper, the disease is first located in the lower section of the spinal cord—which, however, might be disputed—an ascending course of the disease from the lumbar region towards the neck might be assumed; for, in reality, the lower extremities are generally first affected, and as the disease advances, they are also the parts which are most under its sway. If the process should advance further upwards, we would have to expect phenomena referrible to the medulla oblongata, and very soon cerebral phenomena. Alas! according to the present position of our knowledge, symptoms indicating the anatomical locality are here absent. Of course we see the sphere of the hypoglossal (disorder of speech) and facial nerves (tremor, incomplete paralysis) attacked; but we have no sure basis by which to judge in how far these phenomena are referable to changes in the medulla oblongata, or in the brain itself. When, however, on the other hand, we consider that the *cerebral disease* (psychical disorder) following upon the spinal affection is, in many of these cases, highly developed before the appearance of disorders in the sphere of the hypoglossal (disorder of speech) or facial nerves, we can scarcely believe that the disease makes *direct* progress within the medulla oblongata along a course which includes these nerves or their so-called central nuclei. We can, therefore, primarily only show that the cerebral phenomena (psychical disorder) and those of the spinal disease succeed each other, without being able by the *symptoms* to prove a continuous *progression* of the process upwards.

It is still more difficult to prove that the reverse is ever the case. We all know that in a great number of cases the first symptoms observed are undoubtedly those of cerebral disease (psychical disturbance), and not until long afterwards do motory disorders of the extremities follow. Even if we assume for the present that the latter are in reality due to a spinal affection, still we could not—because of the motory disorders appearing subsequently to the psychical—conclude that the spinal cord did not become affected until after the

existence of disease in the brain, and particularly for the reason that, as we shall afterwards show, the spinal affection may progress so latently as not to be recognised by well-marked symptoms, particularly by characteristic motory disorders of the extremities, rendering it possible that the disease was already present before the appearance of the symptoms. The appearance of the disorder of speech also affords no secure point of departure. It occurs, in cases of this kind, at very various periods, sometimes subsequently to the entrance of the psychical disorder, sometimes coincidently with its first symptoms; and it bears no constant relation to the extent of the motory disorders of the extremities. It cannot serve as a guide to the locality of the morbid process, chiefly because we do not know where to seek its special cause.

If we consider all the circumstances, we must *for the present* regard the cerebral and spinal diseases which simultaneously exist in general paralysis of the insane as, in-so-far, existing *per se*, and, in certain respects, independent of each other, as it is impossible for us to define more minutely the nature of the cerebral malady, and to establish a connection between it on the one hand, and the processes of grey degeneration and chronic myelitis of the spinal cord or medulla oblongata on the other.

To show the complete independence of the spinal disease as regards the cerebral malady, those cases might, perhaps, be adduced, in which grey degeneration of the spinal cord (*Tabes Dorsalis*) has existed for a long series of years, even until death, without any alteration of the psychical faculties ever having occurred. Such cases have hitherto been viewed as the sole examples of the type of disease characterised as *Tabes Dorsalis*, from which there was expressly excluded a central disease of the brain. This independency of the spinal affection is, however, as our investigations have repeatedly shown, in-so-far only relative as the same symptoms occur in peculiar connection with a typical cerebral disease—a connection which has hitherto been almost entirely mistaken, as in general paralysis observers continually recognised a purely cerebral malady.

We cannot now advocate such an absolute independency of grey degeneration of the spinal cord as formerly. We can do this still less if we take into consideration another circumstance. There occur, as we have seen, in the paralytic insane, both grey degeneration and a disease of the spinal cord resembling myelitis; we may, therefore, assume as highly probable that these two forms, on account of their common relations to a disease of the brain clinically of the same nature, and common to both, will also possess anatomically certain relations to each other; indeed, that it is, perhaps, the same process, which, under different conditions which are of course unknown to us, may be modified in its development, and observed in various stages. Thus grey degeneration would lose its independence, clinically as a spinal affection, and anatomically as atrophy, and be brought in con-

nection on the one hand with a cerebral malady, and on the other hand with chronic myelitis.

Certain morbid phenomena, which are always observed, firstly in grey degeneration without paralytic insanity, secondly in it when connected with the latter, and thirdly in paralytic insanity in connection with chronic myelitic processes, point to such a community. To these belong, besides other phenomena, the affection of individual *cerebral nerves*, especially the *optic*, and the *apoplecti* and *epileptiform attacks*.

It is known that in the ordinary form of *Tabes Dorsalis* (without paralytic insanity),—in those cases where there is found, on examination after death, grey degeneration of the posterior columns—atrophy of the optic nerve is by no means a rare occurrence. The same atrophy, however, also occurs in *general paralysis*, in those, too, who do not present the tabic form of gait, and where, after death, there is found not grey degeneration of the posterior columns, but the fore-mentioned chronic myelitic processes in various columns.* According to Virchow (Arch. X, p. 192), it also occurs in the so-called speckled grey degeneration, so that in all these forms of disease of the spinal cord, although they assume appearances which are anatomically different, we cannot but recognise a common element. Regarding the incomplete paralyzes of individual *nerves supplying the muscles of the eye*, that which has been said of the optic nerve is applicable, in so far as they likewise occur, not only in paralytics with grey degeneration of the posterior columns, but also in cases where the disease has the myelitic character. In these cases it is very difficult to make correct observations, as the disorders of movement of the eye occur generally at a period before the patients are subjected to minute clinical observation; when the psychical malady is further developed, they can only with

* Amongst fifty-six male patients investigated in one day in May this year, there were fourteen in which, owing to the psychical phenomena alone, or in connection with motory disorders, general paralysis was diagnosed. Of these fourteen so-called paralytics, two had atrophy of the papilla of the optic nerve, of the ordinary form occurring in spinal diseases. Sight was, so far as could be judged, only moderately altered; but of course a minute examination could not be made. Neither of these two patients had exhibited, up to the day of the examination, any disturbance of the motory apparatus, of speech, or of muscular movement. One of them died soon afterwards, and by the aid of the microscope nucleated cells (myelitis) were found in a portion of the lateral column of the spinal cord; the optic nerves were, in parts, of a grey translucent appearance. Another patient, who died before this one, with complete amaurosis and bilateral atrophy of the papillæ, had only disturbance of speech during the course of the disease, and during the last few days exhibited mere symptoms of slight disorders of innervation in the extremities; in him there was likewise found myelitis (nucleated cells) in the anterior, posterior, and lateral columns; the optic and olfactory nerves were grey, translucent, and atrophied. In about fifty women examined in one day, no case of general paralysis was discovered, and none had atrophy of the papilla. In every case the ophthalmoscopic appearances were confirmed by Dr. Von Graeff, who also had the kindness to give complete descriptions of them. In no case were traces of neuritis diagnosed.

difficulty, if at all, be made out; and afterwards, it is only in rare cases that the nerves in question present any palpable change.

The apoplectiform or epileptiform attacks, already mentioned, are likewise *common phenomena*, which occur both in grey degeneration without mental disturbance, and in the paralytic insane with the various forms of spinal disease. The same remarks are applicable to the occasional sudden and transitory *paralyses* in connection with these attacks.

As we have seen, the morbid process in the spinal cord itself presents different forms on examination after death. It either assumes the appearance of a considerable loss of nerve-substance, and substitution of connective tissue (atrophy, grey degeneration), or this change is more of the nature of a chronic interstitial process with fatty degeneration (spreading of the interstitial connective tissue and formation of nucleated cells, chronic myelitis). In the latter form a contingent loss of nerve-substance is not a prominent feature, and the process cannot well be called atrophy. Concerning the finer changes lying at the foundation of these processes, very little is known. According to one view, there is in atrophy a new formation of connective tissue, owing to which the nerve elements are gradually destroyed. According to another view, there is a primary atrophy of the nerve-substance contained in the nerve-tubes, and the connective tissue which contained the nerve-substance is viewed as a remainder, and its increase only relative. The grounds advanced for both the first and second views are extremely meagre, and look like makeshifts. In reality the mode in which the nerve-elements are destroyed and the atrophy originates, is unknown. The chronic myelitic processes, too, are, I believe, not yet sufficiently elucidated. There is, however, probably an increase of the connective tissue elements, which become filled with fat, and in part permit the recognition of an increase of nuclei. Both forms, however, grey degeneration and chronic myelitis, in spite of the different anatomical aspects, appear to stand in a certain relation to each other, which, of course is, as yet, not quite clear. The cases of atrophy, in which still greater numbers of nucleated cells are met with, would then present, as it were, transition cases. Add to this also, that in hardened preparations of myelitis, there are occasionally seen limited spots of the character of grey degeneration, and that the so-called *secondary* affections of the spinal cord (through pressure upon it, &c.) resemble sometimes chronic myelitis, sometimes grey degeneration. Nevertheless, how the processes actually proceed, whether and to what extent we may thereby speak of *inflammation*, are questions which will not be clearly elucidated until our present vague notions regarding the processes which form the basis of the so-called chronic inflammation are rendered more clear.

After what has been said, we may now come to the conclusion regarding the relations of the cerebral and spinal affections in general paralysis, that in those patients there exists a certain disposition of

the nervous system, owing to which, according, indeed, to the nature of the unknown influences of causation, sometimes the spinal, at other times the cerebral section of the nervous system, at others again, peripheral cerebral nerves, are attacked by the morbid process, either in succession or simultaneously.

It has already been stated that encephalitic processes have not hitherto been discovered in any part of the brain in this disease. Consequently, therefore, it is, as yet, impossible to form an analogy between the disease of the spinal cord and the nature of the co-existing cerebral affection. On the other hand, a connecting link is seen in the frequent occurrence of chronic meningitis simultaneously in the brain and spinal cord. This is, of course, neither in the one nor in the other, a constant appearance; nevertheless, it is so frequent, that we may consider both processes, the unknown affection in the brain on the one hand, and the chronic myelitis and atrophy of the spinal cord on the other, to be most generally accompanied by chronic meningitis; we cannot, however, regard this as the basis of the malady. Likewise pachymeningitic processes in the *dura spinalis* and *cerebralis* are more frequently accompanying phenomena.

In conclusion, the question now arises in how far can we explain the symptoms observed during life by the changes found after death? Bayle has already attempted to explain the psychical phenomena by considering the delirium and the agitation to be dependent upon the irritation exerted by the inflamed meninges upon the cortical substance. Indeed he thus made a quite untenable attempt to explain the delirium of greatness, which, according to him, occurs exclusively in this disease. This explanation given by Bayle—though not in relation to the *subject* of the delirium—remains even to the present time influential in regard to conditions of maniacal excitement, and, as we have seen, has been subsequently adopted, especially by L. Meyer, in a somewhat different form. Others, on the contrary, attach more weight to the alleged inflammation of the cortical substance itself, and Meschede believes that the psychical disorder can be best accounted for by parenchymatous inflammation of the ganglion cells, which he thought he had discovered. This, he considers, progresses in a corresponding ratio to the exacerbations of the mental phenomena in various kinds of delirium; with the destruction of the ganglion cells is destroyed likewise the mental life.

I must express myself most decidedly against these anatomical explanations of the psychical phenomena,—quite independent of the circumstance that the anatomical facts even are not sufficiently founded. It is, in short, thorough trifling. We should, I think, have at the present day, a greater conception of the complexity of the psychical processes than to occupy ourselves with such rude attempts to explain them, and actually believe that in so doing we are advancing science. I openly express my aversion to this, and hope that, in future, observers will occupy themselves more with actual facts than with taxing the

imagination with theories of this kind. In the meantime, we have no knowledge in any way established of the process upon which the psychological symptoms of this disease depend.

It is more to our purpose to inquire regarding the immediate causes of the motory disorders and of the *apoplecti* or *epileptiform* attacks. Bayle attempted to account for the motory disorders by compression of the brain which, in the first two stages of the disease, would be produced by the congestion of the vessels of the pia mater, and in the latter stages, by the serous infiltration of the latter, and the copious serous effusion. Others attached importance to the changes in the cortical substance adherent to the pia mater, while others again would attribute the disorders of movement to softening of the inner parts (corpus callosum, fornix, &c.) All, however, thought exclusively of a cerebral cause.

From our investigations we must first of all, so far as the lower extremities are concerned, draw a distinction between the two varieties of disturbance of motion in walking, already described. That the one variety, constituting the tabic form of gait, is to be traced to spinal (grey degeneration of the posterior column), and not to cerebral causes, no one can longer doubt, especially as the same motory disorder may also occur in patients who have no cerebral (mental) disorder. It, moreover, cannot be denied that it is the degeneration of a great number of nervous elements in the posterior roots and posterior columns which gives rise to this gait, and that whether the fundamental motory disorder be attributed to simple loss of sensibility or not. I will not here enter into a discussion of the question why the disorder has the special character which we have designated tabic.* At all events, grey degeneration of the posterior columns is always found in the insane in whom this gait is characteristically developed, although all in whom this anatomical lesion is found did not present the same motory disorder.

More difficult in regard to the purely anatomical cause is that form of gait which we have termed *paralytic*, in which the disturbance is, during the greater part of the course of the disease, more insignificant and less characteristic, so that, frequently, for a long time there is merely a slight degree of awkwardness, clumsiness, and slowness of movement. These are the cases in which the process appears in the form of a chronic myelitis, and no appreciable loss of nerve tubes in the spinal cord and the roots of the nerves can be discovered. One might, on first thoughts, assume that the extent of the motory disorder would here stand in a certain relation to the degree and extent of the myelitic process, which apparently cannot exist without the nerve tubes being somehow affected by it, although no marked disappearance of

* Also in regard to the staggering with shut eyes in these patients, I will only here mention that I do not consider this phenomena as yet satisfactorily explained, but nothing essentially new can be adduced. Most probably it is the degree and nature of the loss of sensibility which plays the most important part.

nerve substance is observed. Yet that there must be a certain compression of the nerve tubes by the growth of the intermediate connective tissue-like substance infiltrated with fat (not to speak of other unknown influences), can scarcely be doubted, and may for the present be assumed in explanation of the hindrance to the movements. Nevertheless it is very difficult to form an estimate of the degree of motory disturbance existing in life from the extent of the changes found after death. There are, as I have shown, many cases of myelitic disease of the lateral and posterior columns without the motory functions having been appreciably involved during life, so that the diagnosis of general paralysis could only be established by the character and the course of the psychical disorder alone or in connection with certain accompanying phenomena, such as apoplectiform attacks, atrophy of the papilla of the optic nerve, &c. In these cases of *latent* disease of the spinal cord, therefore, integrity of the motory apparatus cannot be considered as identical with integrity of the spinal cord. We must, on the contrary, constantly bear in mind that an individual whose psychical symptoms are characteristic of general paralysis may already be suffering under spinal disease, though no objective symptoms are apparent. On the other hand, however, a subjective sensation of slight *lassitude* frequently seems to exist in these cases; this, of course, in well marked mental disorder is most difficult to establish. Why it is that in both the tabic and paralytic forms of the disease, sometimes the most striking improvement almost resembling recovery, and at other times relapses, spontaneously occur, we cannot anatomically explain.

It has already been mentioned that towards the end of the disease the power of movement in the lower extremities (also in the trunk) may be reduced to a minimum, so that while lying in bed the legs can scarcely be voluntarily moved; therefore contractions are apt to set in. This occurs both in grey degeneration of the posterior columns, and myelitic disease of the posterior and lateral columns. The degree and extent of the disease afford no certain explanation; for example, a patient may possess almost complete capability of movement of the extremities, and at the autopsy the same changes (grey degeneration of the posterior columns) might be seen to exist as in a patient who presented the tabic gait and, before death, was totally incapable of voluntary movement of the extremities. Of course it is impossible minutely to determine the amount of the destroyed nerve substance, but in both cases, according to a general estimate, the degree and the extent of the disease are often apparently similar. That the cause of the immobility is here to be sought in an atrophy of the muscular elements, by no means applies to every case.

Whether the frequently occurring muscular tremour, the stronger convulsive tremour, which is sometimes spontaneous, sometimes apparent in complicated movements (especially of the upper extremities), and the involuntary muscular contractions, are to be attributed to direct

irritation of motory nerve tubes, and whether some of these phenomena depend upon a disproportion between the impulses of will and the capability of voluntary contraction of the muscles, remains uncertain. At all events, the same phenomena are observed in analogous affections of the spinal cord without cerebral disease; therefore there is no apparent reason to attribute these phenomena to any other than the spinal disease.

One of the most frequent and most striking symptoms, the disorder of articulation in speech, admits as yet of no interpretation, as neither in the peripheral nor in a portion of the central tract (medulla oblongata, hypoglossus) can any change be discovered. Likewise the frequent cessation and disappearance of the disorder of speech, occasionally with the entrance of maniacal excitement, is incapable of explanation.

In conclusion, we have still a few words to say regarding the *epileptiform* and *apoplectiform attacks* with their accompanying *paralytic phenomena*. Bayle drew a distinction between the two kinds of attacks founded upon their mode of origin, inasmuch as he considered the apoplectiform to be caused by sudden congestions of the pia mater and of the brain, and the epileptiform (also other convulsive phenomena) by the inflammation of the cortical substance (softening of it and adhesion to the pia mater). He bases the latter supposition on the fact that he found inflammation of the cortex in every case in which epileptiform attacks or convulsive phenomena had occurred. This hypothesis is nevertheless refuted by numerous observations, and it is but an arbitrary interpretation of negative facts when Bayle imagines that in these the convulsive appearances merely escaped observation, and must have occurred at some former period, &c.

In more recent times, the apoplectiform, as well as the epileptiform attacks of the paralytic, have been very generally, and in France almost exclusively, referred to congestions towards the brain (medulla oblongata, congestion cérébrale); congestions à forma apoplectique, or à forma convulsive, are spoken of. Indeed, this view of the nature of these attacks has gradually become so general that it scarcely occurs to any one to think of anything else.* Nevertheless, there does not exist a single proof of the correctness of this view, and the circumstance, constantly referred to, of the congested condition of the brain after death is so far from being a fact that often the very opposite condition is met with in individuals who have succumbed to these attacks. In such cases, a certain state of fulness of the veins has generally been confounded with actual arterial hyperæmia. Likewise, the alleged rapid and certain influence of blood letting is not in accordance with facts, as the attacks, which as a rule quickly pass off without interference, are either rendered more persistent by abstraction of blood,

* See, besides, the argument between Bouilland and Trousseau concerning congestion cérébrale apoplectiforme in its relations to epilepsy. *Bullet. de l'acad. impér. de méd.*, 1861, XXVI.

or at all events not modified by it. If these phenomena, loss of consciousness, convulsions, &c., are to be referred at all to disorders of circulation, it would be more in accordance with recently discovered physiological facts (experiments of Kussmaul and Tenner) to think of sudden anæmia of certain parts of the brain. This idea, at all events, would not be in direct opposition to pathological anatomical facts. Considering that we have been studying a series of changes in certain columns of the spinal cord, in the medulla oblongata, the pons Varolii, and the crus cerebri, the supposition is not improbable that through a temporary excitation (due to the morbid process) of the vasomotor nerves proceeding from these parts, the anæmias we have mentioned may be produced.* Further speculation on this point, however, can lead to nothing, until further physiological facts have been obtained.

The paralytic phenomena which so frequently succeed these attacks are very remarkable, and most difficult to explain. As we have seen, they are, in the majority of cases, very transient; they affect the face or the tongue, the trunk, and extremities; they have occasionally the character of complete or incomplete hemiplegia, and are sometimes associated with contractions. They can never—or only in rare and exceptional cases—be referred to intermeningeal apoplexies, to effusions of blood in the cerebral substance, or other appreciable occurrences of this nature. It surprises us, after having observed almost complete hemiplegia, to find, when the patient dies after the attack, absolutely nothing in the brain to account for the paralysis; we ought not, under such circumstances, as the uninitiated are so apt to do, to make a diagnosis of intermeningeal apoplexy, hæmorrhagic pachymeningitis, &c.† Baillarger‡ has attempted to explain these hemiplegias on the theory of cerebral congestion. By weighing the brain he makes out that the hemisphere opposite to the paralysed side weighs less than the other—is atrophied, and he supposes that in the sudden congestions (in the attacks) it is always the same hemisphere which is chiefly affected (unilateral congestions), in consequence of which it becomes more atrophied. Moreover, the congestions might also take place, not suddenly, in the form of attacks, but gradually and permanently, and so produce unilateral atrophy without the occurrence of congestive attacks. If we put out of the question the more than problematical

* This reminds us that Burge, from experiments upon rabbits, assumes that the pedunculus cerebri is a central point of excitation for the vasomotor nerves of all the arteries in the body. *Centralbl. für die Med. Wissensch*, 1864. No. 35.

† When, after attacks with unilateral paralytic phenomena a slight degree of hæmorrhagic pachymeningitis is occasionally found, we ought not to refer the paralysis, without further evidence, to the hæmorrhage, which is often very trifling and may be quite accidental. Indeed, when limited to one side, its position often does not correspond with the side affected by the paralysis (that is, it is not on the *opposite* side).

‡ De la cause anatomique de quelques hémiplégies incomplètes. *Ann. Méd.-psych.*, 1858, p. 168.

view, that the presumed congestions lead to atrophy of the cerebral substance, there remains, as the basis of this explanation of the hemiplegias, merely the difference in weight of the two hemispheres. The number of cases adduced by Baillarger in support of this theory amounts to four; in all, he has observed eight; subsequently Baume* added four. Exclusive of other objections which might be raised against these observations, inequality in the weights of the hemispheres (in the numbers, too, given above) is not a condition which is restricted to hemiplegic paralytics, but occurs in individuals who have never presented paralytic symptoms. Thus, amongst others, Follet and Baume find that inequality of the hemispheres is a common condition in epilepsy; Boyd, Wells,† in epilepsy and idiocy; Koster,‡ in cases of periodical insanity, &c. Baillarger has left his work uncompleted; has he since arrived at other conclusions? The inequality of the hemispheres is evidently dependent upon very various circumstances, and especially upon the relations of the cranium. No proposition can be recognised as a scientific fact which does not take these circumstances into account, nor so long as numbers of individuals present this peculiarity who have no cerebral malady. With these precautions, the pursuit of this investigation may, perhaps, not be without interest, although it must be confessed—having regard to other conditions of loss and atrophy of the hemispheres—the whole theory seems very improbable.

The occurrence of “serous apoplexy,” in contradistinction to sanguinous effusion, has been insisted on by the older physicians in explanation of certain cases of death occurring apparently from apoplexy, but in which no satisfactory post mortem appearances can be discovered. This theory has also been extended to the attacks and consequent paralytic phenomena at present under discussion, inasmuch as it was supposed that sudden effusions of serum occur, particularly in the cerebral ventricles, which might occasion the attacks of loss of consciousness with convulsions, and likewise (through pressure) to the subsequent paralytic phenomena. The unilateral character of the latter would be accounted for by the presence of a greater amount of secretion in the ventricle of one side, and the usually rapid disappearance of the symptoms by resorption of the fluid, or accommodation of the brain to its presence. It is difficult to speak positively on this point, as, on the one hand, we have no satisfactory basis on which to found an opinion regarding the standing of the hydrocephalus internus found in those who die in the attacks, and, on the other hand, sometimes such a condition does not exist. I can, however, deny on the

* Baume, De l'inégalité du poids des hémisphères cérébraux, etc. *Ann. Méd.-psych.*, 1862, p. 540.

† Boyd, Wells. “Observations on the measurement of the Head and the weight of the Brain in 696 Cases of Insanity.” *Med. Times*, Sept. 24th, 1864.

‡ Koster, Untersuchungen über den Einfluss des Mondes auf das periodische Irresein. *Allgem. Zeitschr. f. Psych.*, p. 709.

basis of special observations, that in those cases where there is a greater amount of fluid in the ventricle of one side, there exists a definite relation to unilateral paralytic phenomena, as I have found the side of the body corresponding to the more dilated ventricle paralysed, instead of the opposite side, as would be expected did this relation exist.

We must conclude, therefore, that nothing positive is known concerning the causes either of the persistent, or transient paralytic symptoms of a hemiplegic character. To the *latter* we can indeed adduce certain analogies, as similar transitory paralyses occasionally appear after the attacks in epilepsy, and, moreover, in patients who presented no other symptoms indicative of an apoplectic disease of the brain, and in whom none could be discovered after death. Nevertheless, these cases remain quite as obscure as the former, and, notwithstanding their analogy, present nothing by which they can be explained.

Regarding the *more persistent* hemiplegias or hemipareses, we must, in the first place, look principally to the spinal affection (grey degeneration and chronic myelitis), although it is extremely difficult to establish a standard of degree and extent of change deciding the occurrence of these paralytic phenomena. In particular, in those cases where one half of the body is predominantly affected, we cannot discover any predominant affection of one half of the spinal cord, as, in general, the columns of both sides seem to be equally involved.

But again, it is almost impossible to distinguish with certainty whether there is more disease of one side, as, owing to the extent and complexity of the organ, a perfectly exact investigation can scarcely be made. But even although the persistent unilateral paralytic phenomena could actually be so interpreted, yet the relation which they hold to the apoplectiform and epileptiform attacks must still remain problematical—the paralyses being frequently initiated or markedly aggravated by these attacks.

The foregoing paper affords an explanation of many facts which formerly stood unconnected, and were the occasion of much discussion. I have hitherto left out of the question the disputed points concerning the relative order of succession of the psychical and motory disorders, and other matters connected therewith, particularly the theory of the existence of "General Paralysis without Mental Disturbance," which has been raised in France. These cases, exclusive of cases of apoplexy and muscular atrophy, which do not belong to the same category—refer chiefly to patients with motory disorders similar to those occurring in the paralytic insane, but accompanied by only very slight, and easily overlooked psychical weakness, and very often only by slight weakness of memory, to which, owing to the great preponderance of the motory affection, no importance is attached. It

is evident that in these cases there exist spinal affections analogous to those just described, associated with the first symptoms of mental disturbance.

Another disputed point, viz., whether motory disorders might supervene upon other forms of insanity, more chronic in their course, and which hitherto have not been considered as paralytic, because they are not from the commencement characterised by mental weakness, will furnish a future subject for discussion. I will not, therefore, touch upon it at this time.

I would fain hope that, by directing attention in this paper to the peculiar connection of certain chronic, cerebral, and spinal diseases, and the frequent latency of the course of the latter, I have opened up a new and fruitful sphere of investigation.

OCCASIONAL NOTES OF THE QUARTER.

Professor Griesinger.

Ich erfülle die schmerzliche Pflicht, Freunden und Verwandten den gestern Abend 7½ Uhr erfolgten Hingang meines innigst geliebten Gatten, des Geheimen Medicinal-Rath Professor **Griesinger**, anzuzeigen. Er starb, 51 Jahre alt, an Vereiterung der Nierengegend und hinzugetretener diphtheritischer Lähmung. Unermüdet der Wissenschaft und seinem Berufe ergeben, durfte er hoffen, dass die Saat seiner Arbeit reifen werde; in dieser Ueberzeugung nahm er Abschied von diesem Leben.*

Die tiefgebeugte Wittwe

Josephine Griesinger,

geb. von Rom.

BERLIN,

den 27. October 1868.

THERE are few among the readers of this Journal who will not mourn with almost a widow's sorrow the heavy loss of which they are informed by this announcement. Alas! it is

* I fulfil the painful duty of announcing to friends and relatives the death of my dearly beloved husband, the Medical Privy Councillor, Professor Griesinger, which took place at half-past seven yesterday evening. He died, aged 51, from iliac abscess and diphtheritic paralysis following it. Unwearied in his devotion to science, and to his profession, he might well hope that the seed of his labour will ripen. In this conviction he departed this life.

The deeply afflicted Widow,

JOSEPHINE GRIESINGER.

Berlin, 27th October, 1868.

beyond expression sad: that he who towered so high among us in scientific eminence and moral worth, and whom all honest men who knew him loved, has died in his prime, "and hath not left his peer."

But, oh! the heavy change, now thou art gone,
Now thou art gone, and never must return.

What boots it with incessant care to toil in the arduous pursuit of truth, to contrive great schemes of progress, to cherish high aspiring aims, to "scorn delights and live laborious days," when labour, and honour, and aspirations lead but to the grave? As we think of this great and noble-minded man now laid low in his narrow bed, with the shroud "at rest on his pulseless breast," a feeling of despair at the littleness of life overwhelms us for the moment, and the bitter exclamation rises involuntarily to the lips, On earth there is nothing great but death. "For what hath man of all his labour, and of the vexation of his heart, wherein he hath laboured under the sun? For that which befalleth the sons of men befalleth beasts; even one thing befalleth them: as the one dieth, so dieth the other; yea, they have all one breath: for all is vanity."

We can do little more on this sad occasion than give hearty expression to our sense of, and sorrow for, the loss which medical science, and medical psychology in particular, has sustained by the death of Griesinger. For the real history of the work and the events of his life, we must trust to those of his own country who knew and appreciated him, and who doubtless will not fail to place on record what may justly be told of his career. This much may be said from personal knowledge: that he assuredly had that deep sincerity of nature which is the only foundation of high excellence in any department of human activity. He was emphatically a genuine man: there was nothing of pretence, nothing spurious, nothing superficial in his character; what he did was the earnest expression of his highly gifted nature—was instinct with the genius of the man. From the beginning of his scientific career unto that fatal hour when, to our great loss but to his gain, he passed away to the silent land, truth, and truth for its own sake, was the object of his pursuit, the guiding star which determined the course of his labours. The same sincerity distinguished him in personal intercourse: courteous, and even gentle in manner, his conversation was marked by a grave earnestness which produced the conviction

of one who neither paltered with his own conscience, nor pandered to the prejudices of others. Earnest and constant in his desire to learn, conspicuous for his quick apprehension, for his originality and grasp of thought, of a noble and generous zeal in the cause of progress and humanity, and with a calm, unwearied energy in action, he has gone to his everlasting rest, and no man can say how much medical psychology has suffered by the ill-fated dart which laid him low. For he has been struck down at a most inopportune time; he has fallen just as he was beginning to impart the fruits of his large stores of experience, and of his ripened reflections. The noble ship, laden with the priceless produce of unknown lands, that "all her way across the sea ran straight and speedy," has gone down at the last, even in the haven's mouth.

One of the earliest contributions to science by Griesinger, and one which still has a remarkable value, is an article in the *Archiv für Physiologische Heilkunde* of 1843, entitled "Ueber psychische Reflexactionen, mit einem Blick auf das Wesen der psychischen Krankheiten." It was followed in 1854 by another article, entitled "Neue Beiträge zur Physiologie und Pathologie des Gehirns." Both these articles, the first of which must have been written when the author was not more than twenty-five years of age, are well deserving of study at the present day; and if we bear in mind the date at which they were written, we cannot fail to be surprised at the deep insight which they display into the physiology of mind and the nature of mental diseases. They bear the evidence of great originality and sagacity of thought, as well as of patient and conscientious industry; moreover they contain many suggestive reflections in which will be found much of what has since been incorporated in the general body of received doctrine. These contributions were followed by many others on different diseases; for although Griesinger's earliest labours show the bent of his inclination to the study of nervous diseases, he was nowise a specialist in his studies. He particularly distinguished himself by enquiries into the nature and pathology of cholera, and was selected as the Prussian representative in the medical congress which assembled a few years ago at Constantinople, in order to investigate and report upon the nature and mode of propagation of that disease.

The work, however, by which Griesinger is best known in this country is his treatise on mental diseases, the first edition

of which was published in 1845, when he would be thirty-two or three years of age. The second edition, corrected, remodelled, and much enlarged, appeared in 1861; it has been translated into French by Dr. Doumic, Médecin de la Maison Centrale de Poissy, and into English, for the Sydenham Society, by Dr. Lockhart Robertson and Dr. Rutherford. In the interval between the date of the first and that of the second edition Griesinger had, as he informs us, resided in Würtemberg, and been charged with the direction of the idiot asylum at Mariaberg; and for upwards of ten years he delivered lectures on medical psychology in Tübingen, admitting, as often as opportunity offered, cases of mental disease into his clinique, and making them, like any other disease, the subjects of clinical instruction and discussion. Indeed, it was through life a most earnest aim with him to obtain the acknowledgment of clinical instruction in mental diseases by the Universities; and he happily lived to witness and enjoy the fruits of his labour when he was called to Berlin as professor of clinical medicine and medical psychology in the University, and appointed directing physician of the department of the Charité devoted to nervous and mental diseases. The introductory lecture which he delivered on that occasion was translated by Dr. Sibbald, and published in the number of this journal for January, 1867. A former introductory lecture, delivered at the opening of the psychiatric clinique in Zurich, appeared in this journal for January, 1864. Philosophical in their spirit, they are yet characterized by that truly scientific and practical method of positive investigation which Dr. Skae has so well exemplified in his proposed new classification of mental diseases. *

Of the character of Griesinger's treatise on mental diseases it is not necessary to speak here; the acceptance which it has everywhere had is a sufficient testimony of its merits. Indeed, its benefits have been sometimes more freely accepted than acknowledged; so much so as to have drawn a quiet protest from the author on his own behalf. In the preface to the second edition he says: "Several of the most recent writers on insanity have been so well pleased with the first edition of my book that they have incorporated into their writings not only the ideas and doctrines, the arrangement and examples contained in it, but have even taken as their

* A Rational and Practical Classification of Insanity. By David Skae, M.D.—*Journal of Mental Science*, Oct., 1863.

own, without restraint, actual excerpts of whole sections. I quietly permitted this to occur, but now it would of course be disagreeable to me if any one were to think that it was I who, in this edition, had borrowed from these authors. I would therefore beg of the reader, wherever doctrines, pages, and even chapters, occur similar, or nearly similar, to what they may shortly before have read in books or journals, simply to compare them with the first edition of this work which appeared in 1845."

Notwithstanding this necessary reclamation of his property, we know that Griesinger was far from satisfied with his treatise; that he looked on it as being too psychological in its method, and as having too much the character of a compilation. When he was in England four years ago he expressed his intention or hope to publish before long a third and revised edition, incorporating in it the results of his later experience. This dissatisfaction was partly due to the natural modesty of his character, but it was partly due also to the continual development of his views by the teachings of experience, and especially to a systematic medical study of mental and nervous diseases as two improperly separated branches of one science. It was his strong conviction of the necessity of moving psychiatry from the position of a narrow specialty, of bringing it under the domain of diseases of the nervous system, and making it part and parcel of general medicine, presenting the same medical problems, and amenable to the same method of enquiry, as other nervous diseases—it was this conviction which determined him to establish a new quarterly Journal, which should deal with the whole domain of nervous and mental diseases. The first number of this Journal, *Archiv für Psychiatrie und Nervenkrankheiten*, edited by him in conjunction with Dr. L. Meyer and Dr. Westphal, appeared early in 1868, and contained, as the succeeding numbers have, some very valuable contributions. Two articles, one by Griesinger on the *Care and Treatment of the Insane* in Germany, the other by Dr. Westphal on *General Paralysis of the Insane*, have been reprinted in this Journal, the first having been translated by Dr. Sibbald, and the latter by Dr. Rutherford. Having regard to the plan of the new Journal, and to the successful manner in which the design of its promoters has thus far been carried out, we realise painfully the irreparable calamity which the death of its chief editor is. There is not a man so specially qualified by capacity and attainments for the high aim which he had set before him.

There is one more circumstance in Griesinger's life which it would be unjust to pass over without mention even in this brief notice. He abolished the use of mechanical restraint in the treatment of the insane in the Charité. While many of his countrymen were defending with passionate prejudice the system of mechanical restraint, and rudely condemning a system of which they had no practical knowledge, he visited the best English asylums, studied the non-restraint system in practical operation, recognised its success, and forthwith set himself earnestly to work to carry it into effect. The circumstance affords an illustration of his large and candid mind, ever open to receive and fairly examine new views, and capable of rising above the trammels of habits and systems of thought. In the same spirit of candid enquiry he personally studied the family treatment of the insane at Gheel; and his latest labours were given to the zealous advocacy of a larger measure of freedom for the insane than they have under the system of indiscriminate sequestration which is now in vogue. His last words are a noble testimony to the generous and enthusiastic spirit of an earnest reformer.

But we must bring to an end this short memoir, deeply conscious how lamely it exhibits the great merits of him whose loss we mourn. One comfort we have, that death which has robbed us of him, and of so much that he might, had he been spared but a little while, have done, cannot rob us of the good work which he has done; of this nothing can bereave us. The seed which he has sown will surely spring up and bear fruit a hundredfold, and he, being dead, will yet speak. He has put off mortality and has put on immortality: the mortal we have lost, but the immortal abides with us. Justly then may our mourning be turned into joy—joy that the true work of a good life never dies, that though death is great, life is still greater, “seeing that we die in a world of life and of creation without end.”

Mental Philosophy in Germany and France.

PERHAPS the most remarkable feature in the present state of mental philosophy is the rapid spread of materialism in Germany, which has attracted considerable attention in France, and has been noticed this year at the two scientific gatherings at Norwich and Oxford. There seems to be a general tendency to attribute this revival of materialism exclusively to the teaching of physiologists, which is natural,

but far from correct. For the last twenty years it has been obvious that the Critical Idealism of Kant and his school had completed its circular course, and it had become more and more estranged from the general intellectual activity of the country, although retaining a nominal supremacy. The moment had therefore come for its fall, just as the schoolmen were displaced by Descartes, the Cartesians by Locke, and the sensualist school by Kant; and various signs indicated that the next philosophical movement would be to the opposite extreme.

The first tendency to materialism appeared in the school of Herbart, which, although despised by the Hegelians, has long been gaining ground among thoughtful men in Germany; and some of the strongest psychological arguments anywhere to be found against the freedom of the will and the immortality of the soul are due to Waitz and Drobisch, two of Herbart's disciples.

But the impulse to its present rapid increase among scientific men is due to their general acceptance of Comte's philosophy, whence some Positivists have deduced materialism by a process which their high-priest, M. Littré, does not disavow.

The results are probably best known to English readers by Dr. Büchner's book, on "Force and Matter;" but many others have shown equal boldness in pushing materialism to its furthest consequences. Thus Vogt asserts that the brain secretes thought as the liver does bile, or the kidneys urine; while Moleschott speaks of thought as "a phosphorescence of the brain;" and Meyer of laws of thought as innate functions of the same organ.

Virchow, who has been claimed as one of the chief supporters of these opinions, does not seem to go so far; he would appear rather to remain in that state of *ακαταληψία* or suspension of judgment, which is a fundamental article of the true Positivist creed; indeed, he goes farther, and asserts that the fact of self-consciousness is inexplicable on the materialist hypothesis.

It is unfortunate that this movement shares, to a very great extent, in the contemptuous neglect of the system it seeks to displace, which is the immediate strength, and ultimate weakness, of every philosophical innovation. The arguments employed by its upholders are (as M. Caro says) "*d'une désespérante monotonie*," being almost exclusively derived from the disagreements of metaphysicians, and from the

natural sciences; indeed, the only philosophical difficulty which appears to have seriously embarrassed them, is the difference in kind between thought and the phenomena of the external world. This they ordinarily answer by suggesting analogies; as Vogt's, that the other secretions of the body differ in kind from the glands which form them; or as Büchner's, that the movement produced by a steam-engine differs from the engine itself.

Moleschott urges, with much more subtlety and ingenuity, that the law of transmutation of force supplies the solution of the difficulty; if heat can be transformed into light or movement, movement into electricity, and so forth, any of these may be again transformed into nerve-force, and nerve-force into thought. As this is not a professed treatise on the subject, it may be sufficient to remark, that the real objection to materialism is not based upon the mere difference in kind between thought and any phenomena apprehended by the senses, but on that difference being so utterly radical as to lead us to suppose they can have no substratum in common; and to this the analogies proposed are no answer whatever. The law, again, of transmutation of force evidently depends upon all the forces of nature being only various modes of the local motion of matter (at any rate such is the conclusion now almost established by modern physicists); which it is only begging the question to extend to the phenomena of mind. But Moleschott has deserved well of philosophy by bringing forward (into more prominence even than Mr. Herbert Spencer) such a suggestive topic, yet one which appears more likely to injure than to benefit his own cause. Curiously enough, he and some of his disciples have been led by the exigencies of controversy, to personify vaguely this law, and thus to revive the Neo-Platonist idea of an "anima mundi," while, even more recently,* it has been employed in the same way, but on totally opposite grounds, to establish a system of "naturalistic Pantheism," if I may be allowed to coin a new adjective in describing an alliance which is among the probabilities of the future.

Whatever may be the fortunes of this materialist movement, one good result is already discernible: it will put an end to the separation which at present unfortunately exists between philosophy and natural science. On the one hand,

* By M. Emile Burnouf, "La Science des Religions." *Revue des Deux Mondes*, Oct. 1, 1868.

men of science who profess materialism and atheism *are* philosophers, though they may not know it ; they are deciding upon some of the weightiest questions of philosophy, and are forming a system for themselves, although without the help of previous speculation to guide them.

On the other hand, metaphysicians are at last condescending to study biology and the other physical sciences, which, since the time of Descartes, have been generally considered beneath the dignity of a philosopher. The principal opponents of this new movement are convinced that it is principally owing to the neglect of science by philosophers, and we thus have M. Janet, one of the French "spiritualist" school, writing a book on "*Le Cerveau et la Pensée*," which testifies to considerable study of the physiology of the nervous system, and M. Caro giving a most interesting and excellent account of the relation of materialism to positivism and to the experimental sciences. Such a change from their master's teaching, among the disciples of Victor Cousin, must be for the better.

There is even great reason to hope that the general principles of the natural sciences may be included in the textbooks of philosophy used abroad. For instance, Professor Dellacella, of Parma, works into his admirable little manual of "*Antropologia Empirica*," the opinions as to functions of the different parts of the encephalon held by Schiff, Lussana, and De Renzi ; and in a *Compendium of Philosophy*, just published by Professor Stoeckl, of Münster, the physiology of the nervous system, the phenomena of dreams, somnambulism and insanity, the principles of geology and biology, Serre's and Darwin's theories of the origin of species are briefly, but adequately stated, and their bearing on general questions of metaphysics is fairly estimated. If it is desirable that philosophy should have any influence at the present day, when the experimental sciences are advancing so rapidly, this is the only way to produce such a result ; but there is still much to be done to close the gulf which has been formed by three centuries of mutual estrangement and neglect.

R. W. G.

Dr. Rumsey on the Public Health.

Dr. Rumsey's "Address on Health," delivered as President of the "Public Health Section," at the Social Science Congress, held at Birmingham, in October, 1868, contains a masterly summary of the whole subject. It was published in

the *British Medical Journal*, October 17th, and is also given in full and revised in the new volume of the transactions of the association.

Dr. Rumsey discourses eloquently of the purification and of the fitting for man's use of "our grand surroundings—Air, Water, and Earth." The address is worthy of careful study by all interested in Sanitary Reform.

Dr. Rumsey carefully weighs the several relations of sewage irrigation (which now quite boasts a literature of its own, and is a subject of interest in all public asylums), and thus sums up the present state of this question:—

From the evidence already in our possession, and on reviewing many conflicting statements, it may, I think, be fairly inferred, that in the use of fluid sewage for land irrigation, the following sanitary conditions should be observed. An extent of land surface should be obtained, which shall be sufficient, under engineering direction and proper precautions, to absorb the whole of the fluid in dry weather; sufficient to decompose and fix its organic constituents; sufficient, again, to prevent atmospheric pollution; sufficient, also, to admit of long intervals between the periodical applications of the fluid to each portion of the surface; and, therefore, sufficient to promote a succession of crops, roots, and cereals, so that we may hear of something better, on good soils, than Italian rye-grass. To secure the fulfilment of these conditions, and on physiological grounds generally, though perhaps not in accordance with eminent engineering authority, I suggest that not less than an acre of clay or loam be secured for every thirty or forty of town population. If sand, gravel, or silica constitute the bulk of the soil—these admitting of a far larger proportion of sewage on the same area—the effluent water should not be allowed to enter any stream which may be needed for domestic use, until it had been disinfected by scientific and approved methods.

Where sewage irrigation cannot be carried out by gravitation, Dr. Rumsey counsels that we adopt that most ancient method recently revived, in which earth is brought to the matter to be disinfected in its primitive condition, instead of carrying that matter, in solution and suspension, to the earth. The mighty power of certain soils, not only to deodorise, but to abstract from decomposing animal matter those elements which may be assimilated by the roots of plants, leads to the conclusion that the Jewish legislator proclaimed the most philosophical, as well as the most practicable and profitable, expedient. Had his sanitary regulation been religiously and discreetly observed by the inhabitants of Jerusalem,

under the monarchy, they might have preserved the Valley of Hinnom from pollution as the laystall and common cesspool of the city, and thus perhaps have prevented that strange use of the perpetual fires of Hinnom in which, as some learned commentators say, abominations of all sorts were burnt and reduced to ashes. It is (he continues) an ascertained fact that, by covering the matters in question with dry clay, marl, or peaty loam, their volatile and nitrogenous constituents are at once fixed, and, with their phosphates, are slowly assimilated by the earth. The deodorisation is perfect, because it is the result of complete chemical change. The compound resulting from this mixture becomes, in a few weeks, an uniform inodorous earth, again capable of performing the same digestive functions; and this process may be repeated several times by the same mass of earth.

PART II.—REVIEWS.

The State of Lunacy in 1867. Great Britain and Ireland.

(Continued from *Journal of Mental Science*, July, 1868.)

PART II.—THE LUNACY BLUE BOOKS FOR 1867.*

In the July number of the *Journal of Mental Science* (July, 1868), we gave a picture of the state of lunacy in Great Britain and Ireland, as drawn from a review of the Public Asylum Reports for 1867. Our notice was necessarily limited to the reports which had reached us in time for that number. A few of the reports not thus noticed have subsequently been received, too late unfortunately for review this year.

The “Lunacy Blue Books” for the year 1867 are now before us. Those of the previous year were noticed in the *Journal of Mental Science* for January, 1868, “The State of Lunacy in 1866.” The “State of Lunacy in 1867” is again a record of progress, of further development and consolidation

* 1. Lunacy. Copy of the Twenty-second Report of the Commissioners in Lunacy to the Lord Chancellor. (Presented pursuant to Act of Parliament.) Ordered by the House of Commons to be printed, 15th June, 1868.

2. Tenth Annual Report of the General Board of Commissioners in Lunacy for Scotland. Presented to both Houses of Parliament by command of Her Majesty. Edinburgh: printed for Her Majesty’s Stationery Office, by Thomas Constable, 1868.

3. Lunatic Asylums—Ireland. The Seventeenth Report on the District, Criminal, and Private Lunatic Asylums in Ireland: with Appendices. Presented to both Houses of Parliament by Command of Her Majesty. Dublin: printed by Alexander Thom, 87 and 88, Abbey Street, for Her Majesty’s Stationery Office, 1868.

of the English Public Asylum system, inaugurated by the legislation of 1845, and since steadily developed under the guiding hand of the Lunacy Commissioners.

Of the later work in Scotland, a similarly favourable report can now year by year be made.

I. *England and Wales.*

The twenty-second report of the Commissioners in Lunacy is dated 31st March, 1868. It is a thick volume of 223 pages, with a valuable appendix of asylum plans, containing—

1. Three plans of the Sussex Lunatic Asylum, Haywards Heath, shewing the original buildings and the subsequent additions, with letter press.

2. Two plans of the Glamorgan Lunatic Asylum, shewing (a) the general ground and disposition of the buildings, and (b) the first floor plan in detail.

3. A plan of the new-detached block at the Worcester Lunatic Asylum.

4. Three plans of the new asylum for the county of Surrey at Brookwood, with letter press.

5. A plan of the detached block for male patients at the West Riding Asylum, Wakefield, with letter press. These reduced copies of plans for lately erected asylums or additions to asylums are given to show the character of the arrangements that have had the recent approval of the Commissioners.

The number of lunatics in the English Asylums with the changes in the population during the year 1867 are shown in the three following tables:—

I. Table showing the number of Patients in the English Asylums on the 1st of January, 1867.

ASYLUMS.	NUMBER OF PATIENTS, 1ST JANUARY, 1867.						
	PRIVATE PATIENTS.			PAUPER PATIENTS.			TOTAL.
	M.	F.	Total.	M.	F.	Total.	
County and Borough Asylums	107	109	216	11,146	13,228	24,374	24,590
Registered Hospitals	946	898	1,844	190	184	374	2,218
Metropolitan Licensed Houses	879	701	1,580	293	621	914	2,494
Provincial Licensed Houses	914	735	1,649	124	212	336	1,985
	2,846	2,443	5,289	11,753	14,245	25,998	31,287
Naval, Military, and State Criminal Asylums .	532	98	630	.....	.....	.....	630
TOTAL	3,378	2,541	5,919	11,753	14,245	25,998	31,917

II. Table showing the Admissions, Discharges, and Deaths in the English Asylums during the year 1867.

ASYLUMS.	Admissions during the Year 1867.			DISCHARGES DURING THE YEAR 1867.						Deaths during the Year 1867.		
				Total Number.			Number Recovered.					
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			
County and Borough Asylums .	3,665	3,739	7,404	1,669	1,963	3,632	1,121	1,559	2,680	1,489	1,193	2,682
Registered Hospitals	380	436	816	236	324	560	113	194	307	109	83	192
Metropolitan Licensed Houses .	531	594	1,125	363	410	773	103	136	239	161	139	300
Provincial Licensed Houses . .	428	425	853	266	313	579	119	172	291	90	72	162
Naval, Military, and State Criminal Asylums	5,004	5,194	10,198	2,534	3,010	5,544	1,456	2,061	3,517	1,849	1,487	3,336
	262	28	290	253	30	283	54	1	55	27	2	29
TOTAL	5,266	5,222	10,488	2,787	3,040	5,827	1,510	2,062	3,572	1,876	1,489	3,365

III. Table shewing the number of Patients in the English Asylums on the 1st January, 1868, with the Numbers deemed Curable.

	PRIVATE PATIENTS.			PAUPER PATIENTS.			Total.	Numbers deemed Curable.		
	M.	F.	Total.	M.	F.	Total.		M.	F.	Total.
County and Borough Asylums.	114	105	219	11,646	13,815	25,461	25,680	937	1,288	2,225
Registered Hospitals.	961	909	1,870	210	202	412	2,282	165	225	390
Metropolitan Licensed Houses.	873	684	1,557	306	683	989	2,546	125	148	273
Provincial Licensed Houses.	901	697	1,598	209	290	499	2,097	178	183	361
	2,849	2,395	5,244	12,371	14,990	27,361	32,605	1,405	1,844	3,249
Naval Military, and State Criminal Asylums.	514	94	608	.....	.....	.....	608	98	37	135
Total.	3,366	2,489	5,852	12,371	14,990	27,361	33,213	1,503	1,881	3,384

The Commissioners report that several new county asylums are in progress. Plans for the erection of the asylum near Wallingford for the accommodation of 285 patients belonging to the county of Berks, have been approved. A second asylum for the county of Chester has also been sanctioned; the site is a short distance from Macclesfield. The plans provide for the accommodation of 610 patients, at an estimated expense of £68,000, exclusive of the remuneration of the architect and clerk to the works; and the building will be upon what is called the block or pavilion system, having an administrative block in the centre, separating the male and female divisions.

On these plans the commissioners thus record their final disapproval of detached residences for the medical superintendents:—

The plans originally submitted were found to require considerable alteration in matters of arrangement. Among others, that of the Medical Superintendent's residence, for which a detached building had been designed, led to a very strong expression of opinion on the part of the commissioners, that every such arrangement by which the only officer having direct responsibility does not pass his nights within the walls of the asylum, involves too much unavoidable interruption to the continual and vigilant supervision which is indispensable in all such establishments, to be satisfactory in any case; and the principle involved was deemed of sufficient general importance to be made the subject of a special resolution by the Board, to the effect that they would in future consider it to be their imperative duty to advise the Secretary of State to withhold his sanction from all plans of new county asylums, or of additions to or alterations in existing asylums, in which provision is proposed to be made by means of a house, separate and apart from the asylum itself, for the residence of the Medical Superintendent.

In view of the impending dissolution of the union between the counties originally contributory to the Abergavenny asylum (the existing asylum at Abergavenny being retained by the counties of Monmouth and Brecon), steps have been taken to build an asylum by the authorities of the county and city of Hereford, with whom it is assumed, and to be desired, that a new union will be ultimately concluded with the county of Radnor. A site has been approved about three miles from Hereford, and plans for the asylum have been submitted. The new asylum for the county of Surrey, at Brookwood, near Woking, was opened in June, 1867, and 160 males and 168

females had been received during the remainder of that year; the number of inmates on the 1st of last January was 307, 152 males and 155 females. The defective water supply, remarked upon in former reports, still retards the full development of this asylum.

The purchase of a site, near Beverley, for the erection of the proposed new asylum for the East Riding, has been sanctioned by the Secretary of State. The site, although not identical with that referred to in the last report of the Commissioners, forms part of the same estate; the change from the original intention having been necessitated by the difficulty, also adverted to in that report, of obtaining upon the first site a sufficient supply of water. Plans for the building are in course of preparation, the number to be at first accommodated being 250. The plans for the new asylum for the West Riding are still under consideration. Plans for the new asylum for the Borough of Ipswich have received the sanction of the Secretary of State; and the new asylum for the Isle of Man is rapidly approaching completion.

Enlargements of several of the county asylums are also in progress. Those for the permanent enlargement of the Durham asylum have received the necessary official sanction. Two new wings, for fifty patients of each sex, and a new detached chapel, are to be erected at the Bucks asylum. A new chapel has also been sanctioned at the Somerset asylum:—

Plans having been submitted for the erection of a new chapel close to—and by means of covered ways connected with—the main building, strong objections were offered by the Board to the proposed position of it, on the ground that a chapel should in all cases, if practicable, be a detached building, at a suitable distance in the grounds, having as far as possible the appearance of a village church, and forming a pleasing object from the wards. The Committee of Visitors having urged, on the other hand, that to carry out these views, in the particular case, would involve a departure from the conditions upon which the Quarter Sessions' grant had been made (the principal object being to appropriate as day-room accommodation the entire space of the existing chapel, and this rendering necessary immediate provision of a place of worship readily accessible for every class of the inmates in all weathers), the commissioners withdrew their objection, and the plans have since received sanction.

The admitted necessity for increasing the asylum accommodation for the county of Lancashire induced a proposal to

be entertained by the visitors of the Rainhill asylum for its enlargement, so as to accommodate 1,000 patients, instead of the present number of 750. As a corresponding addition to the asylum land was found to be impracticable, the commissioners were solicited to sanction the projected enlargement, without insisting upon such corresponding increase to the land as it is their invariable practice to require. To this application the Board gave a decided refusal, expressing at the same time a further opinion that the asylum premises were already scarcely commensurate with the number of inmates.

To pass from the county asylums to the metropolitan licensed houses, the Commissioners thus sum up their impressions of the present condition of these establishments. They are 41 in number, five of them receiving pauper as well as private patients:—

As regards the condition and management of the Metropolitan Houses generally, there is no doubt that upon the whole a progressive improvement has taken place, and that in many of them a more liberal and enlightened system has been adopted in the treatment of the patients. We have still, indeed, to make frequent and numerous suggestions, and to advert to many shortcomings; but, as a rule, our recommendations are now more readily attended to, and more speedily carried out.

One of the matters upon which we have very strongly insisted, and in regard to which we have had the least ready compliance, especially in some of the houses receiving pauper patients, has been the provision of an ample staff of well-qualified and respectable attendants and nurses. We have also very frequently had occasion to advert to the inadequacy of the wages to secure and retain the services of competent persons, and to the numerous changes which consequently occur among them.

We have now very rarely to complain of the dietaries, and, as a rule, much greater liberality is displayed in matters relating to furniture and decoration. Strong and special furniture is no longer used, and the accommodation provided for patients of the private class in no way differs from what is usually found in an ordinary dwelling-house. The occupation and entertainment of the patients are also far better attended to, and a much larger proportion of them are now taken beyond the Asylum precincts for exercise, and to visit theatres, exhibitions, or other public places of amusement.

The use of mechanical restraint, except for surgical reasons, has been almost entirely abandoned, and seclusion is more sparingly used than formerly.

One evil not dependent upon the proprietors of these establishments, but which still exists to a very considerable extent, is the neglect shown towards patients by their friends and relations, who in numerous instances rarely or never visit them. This has frequently been commented on. The neglect is often felt most painfully by patients, and we have done our best to counteract the evil by ourselves addressing the friends on the subject, or by directing that a copy of our remarks entered in the books at the Asylum be forwarded to them. Another subject of complaint has been the scanty supply of clothing furnished by relatives, rendering it impossible to keep patients in a neat condition, and often preventing them from the enjoyment of walks beyond the Asylum precincts.

The Commissioners then proceed to give a short analysis of the entries made last year by the Visiting Commissioners in the several provincial licensed houses. They are not of any special interest to our readers.

Turning to the condition of the Insane in Workhouses, we quote in full the important observations of the Commissioners on the impolicy of the detention of recent cases of insanity in the wards for chronic lunatics, now opened in many of the county workhouses:—

During the past year, in many of the more populous unions in the provinces, separate lunatic wards at the workhouses have either been established, or the existing wards have been extended. These wards are professedly intended only for such chronic and harmless patients as it is proper to retain in the workhouse, but we very generally find that when such wards exist, they are not restricted to the above-named class, but that, as a rule, in many unions, recent cases of insanity are sent to them in the first instance, and are only removed to the asylum when they become so violent and dangerous as to be quite unmanageable, after imperfect attempts at cure in the workhouse have failed, and when much valuable time has been lost, during which the patients, if submitted to proper treatment, might have recovered.

During our inspection of these workhouse lunatic wards, we have very frequently to urge the removal to the asylum of patients who require curative treatment, and we have from time to time, in our reports to the Poor Law Board, endeavoured to impress upon the guardians and the medical officers the importance of promptly remitting all recent cases of insanity, in the first instance, to the asylum. We have also pointed out the gross injustice as regards the patients themselves, and the financial mistake, as regards the ratepayers, which are committed when attempts are made to cure recent cases of insanity in the wards of workhouses; for even in those exceptional instances where

the diet is good, and many of the arrangements upon a comparatively liberal scale, there is an absence of that constant and skilled medical supervision and treatment, of specially trained officers and attendants, of the means of diversified occupation and amusement, and of the many other resources and appliances to be found in asylums, and which are so essential in promoting recovery.

The result of attempts at the cure of recent cases in workhouse wards, even in the most favourable circumstances, is usually imperfect recovery for a while, and ultimately permanent insanity. It is needless to observe that this is not only entirely at variance with the intention of the Lunacy Acts, but is a cruel hardship to the unfortunate patients; and as it involves a certainly permanent, instead of a probably temporary, burden upon the union funds, it is also a real injustice to the ratepayers.

Of private single patients the Commissioners report that the number of private patients under single care, in accordance with the provisions of the section of the Act 8 & 9 Vict, c. 100, on the 1st January, was 274. The changes which have taken place in this class during the past year are shown in the following table:—

Patients under Single Care.				Males.	Females.	TOTAL.
Number, 1st January, 1867 . . .				96	127	223
Registered during the year . . .				64	78	142
				160	205	365
Males. Females.						
Discharged . . 39 39 }				47	44	91
Died 8 5 }						
Remaining, 1st January, 1868 . .				113	161	274

Of these single patients the Commissioners observe that the experience derived from their visits to this class of patients confirms the opinion they have expressed in previous reports, that the condition of the insane in such circumstances is, in many cases, very unsatisfactory. The treatment adopted towards not a few has been not only not calculated to improve them, but has been positively injurious.

Several indictments for the illegal reception of patients with-

out certificates have been laid by the Board during the past twelve months, of which five have been successful, one failed, and one is pending. Dr. Milburn, of Aldringham; Mr. Sheward, of Malvern; Mr. Shaw, of Boreham Wood, Elstree; and Mr. Robinson, of Newbury, were the medical men found guilty.

The Commissioners record the material particulars of eight cases of ill-treatment of patients by attendants during the year—"a few selected out of many"—and call attention to the following circular, issued in May, 1867:—

Office of Commissioners in Lunacy,
19, Whitehall Place,
23 May, 1867.

SIR,

The numerous statutory notices given to this office during the twelve months just expired, of dismissal of attendants from asylums, registered hospitals, and licensed houses, on account of ill-treatment of lunatic patients, have led the Commissioners to the opinion that dismissal only is insufficient to prove an effectual check to offences of this description. I am, therefore, directed by the Board to suggest to all Committees of visitors, governors, and proprietors of institutions for the reception of insane persons in England and Wales, the expediency of taking proceedings under the Acts 16 & 17 Vict., c. 96, s. 9, or 16 & 17 Vict. c. 97, s. 123, in all cases where any reasonable expectation of proving the offence exists. It is almost unnecessary to observe that, after dismissal, it is a difficult, if not impossible, task to follow up the offence by prosecution, inasmuch as the accused are then frequently not to be found.

I am, &c.,

CHARLES PALMER PHILLIPS,
Secretary.

Of cases of suicide during the year, the Commissioners select for notice nine cases, "as exhibiting want of proper arrangements, or due vigilance, or calling, on other grounds, for particular observation."

The efforts of the Medico-Psychological Association to enforce the use of an uniform system of medical statistics in the public asylums receive again the most favourable mention. The second series of these tables are referred to, and in Appendix K. to this Report the whole ten tables recommended by the Medico-Psychological Association are printed. The Commissioners add that a "compilation of facts on insanity, registered according to this series of tables, in all institutions for the treatment of insanity in this country,

would be of the greatest utility in statistical comparison, and supply the chief requisites for a scientific application of the results of medical statistics. *They trust, therefore, that the Visitors and Superintendents of all such establishments may, as early as practicable, introduce therein this system of medical registration.*" The Medico-Psychological Association are deeply indebted to the Commissioners in Lunacy for this important recommendation, which will probably insure the general and early use of their statistical tables in the English public asylums.

The question of "Institutions for Pauper Imbeciles and Idiots," receives the notice its importance merits with reference to the grant made by the Quarter Sessions for the County of Warwick of £10,000 to build on the grounds at Hatton a separate asylum for 200 idiots and imbeciles. The recent legislation on this question (Lunacy Amendment Act, 1868) affords increased facility for the adoption of a similar provision in every county in England (see *Journal of Mental Science*, October, 1868. Occasional Notes of the Quarter: "The Lunacy Amendment Act, 1868").

The Commissioners add that "the unfitness of the ordinary wards of a lunatic asylum on the one hand, and those of a workhouse on the other, for the proper training and care of idiots and imbeciles, has been noticed in previous reports, and in many cases of this class receiving out-door relief, and living either with their own relations, or boarded out with strangers, their treatment is no doubt even more unfavourable."

The Commissioners in Lunacy conclude their valuable report (of which we have given this brief outline) with the following appeal, which we cordially endorse, in favour of a consolidation of the Acts of Parliament affecting persons of unsound mind:—

To arrive at a conclusion in favour of the consolidation, it seems only necessary to count the number of the Acts, and to glance at their obvious defects in regard to arrangement of matter and style of diction; next, to consider the wide extent of their operation; and, lastly, the class of persons in this country to whom the Law of Lunacy should be plain and intelligible. Now, there are no less than 41 acts affecting the insane subjects of Her Majesty in England and Wales. The earliest seems to have been passed in the reign of Edward the Second; the two latest were the work of the present Parliament during the last session. To a certain extent, indeed, these several Acts may be grouped in this way, viz., seven as applying to lunatics found so by inquisition; three as regulating the care and treatment of lunatics not so found; as many as 18 under the head of acts affecting pauper lunatics; and 11 others may be said to apply to criminal lunatics only.

Then there is the Act 14 and 15 Vic., c. 81, which (*inter alia*) authorises the removal to this country, from India, of insane persons charged with offences; and there is also the Act 17 and 18 Vic., c. 94, which makes provision respecting certain payments to this Board. Such classification is, however, by no means a complete answer to the charge of complexity which may be brought against these statutes. The truth is that, as in other legislative action in this country, so in the statutory dealings with lunacy, defects have from time to time become apparent, the aid of Parliament has been invoked, Act has followed Act in quick succession, amendment has been added to amendment, and thus has sprung up the evil of such a formidable series of legal provisions that the mere number of enactments creates confusion; a confusion, of course, much exaggerated by the pernicious practice adopted of referring, in later statutes, to earlier for explanation. This confusion again is intensified by want of arrangement in the several chapters of our Statute book on this point; many of the Lunacy Acts are specially faulty; some are truly "omnibus" statutes of the worst kind; 25 and 26 Vict., c 111, for instance, appears to be a drag-net of that sort. As to the literary faults of the lunacy statutes collectively, they are not, perhaps, greater than may be found in many of the contemporary productions of parliamentary draftsmen; but it is submitted that verbosity, and consequent lack of simplicity, are vices of the most grave kind where relief is professed for an affliction to which all humanity is subject, and which demands early treatment. If pure consolidation in any department of English law be expedient, proper, and possible, we submit that it should be initiated where, as in the Lunacy Acts, the matter is, "*ex necessitate rei*," of general public interest, where the persons bound to obey the law should be prepared to act without warning, and where the delay of an appeal to a lawyer, perhaps at some distance, for explanation of the proper course of action in the emergency, may peril the life or mental recovery of a human being. Many of the provisions of the Lunacy Acts, your Lordship will remember, are directly addressed to medical men, parish officers, constables, &c.; persons not conversant with legal phraseology, and some of them in a humble sphere of life. For that reason, if for no other, their provisions should be concise, plain, and explicit.

II. Scotland.

The first part of this report of the Scotch Commissioners in Lunacy is occupied with an elaborate series of statistical observations on the Lunacy of Scotland.

The number and distribution of the insane in Scotland, on 1st January, 1867, exclusive of unreported lunatics maintained in private dwellings from private resources, were as follows:—

Table shewing the Number of Patients in the Scotch Asylums on the 1st of January, 1868.

ASYLUMS.	Male.	Female.	Total.	PRIVATE PATIENTS.			PAUPER PATIENTS.		
				Male.	Female.	Total.	Male.	Female.	Total.
In Royal and District Asylums.	1764	1755	3519	484	428	912	1280	1327	2607
„ Private	282	390	672	99	132	231	183	258	441
„ Parochial	193	247	440	...	...	...	193	247	440
„ Lunatic Wards of Poorhouses.	251	307	558	...	...	...	251	307	558
„ Private Dwellings.	688	885	1573	11	14	25	677	871	1548
TOTALS,	3178	3584	6762	594	574	1168	2584	3010	5594

It appears from this Table, that of insane persons in Scotland, excluding criminals, of whom the Commissioners have official cognizance, 1168 were supported by private funds, and 5594 by parochial rates. At 1st January, 1866, the corresponding numbers were 1126 and 5490. There was thus, in 1866, an increase of 42 in the number of private patients, and one of 104 in that of paupers.

From the number of valuable statistical investigations recorded in this Scotch report, we quote the two following as of more than local (Scotch) interest:—

(a.) *The Relative Tendency of Males and Females to Insanity.*

The relative tendency of males and females to insanity, as determined from the number of private patients resident in asylums, is, on an average of the ten years, 1858-1867, as 100 to 101.7. When determined by the numbers sent to asylums, the relation is at 100 to 104.4. It must, however, be borne in mind, that the first comparison will be affected by the proportionally greater mortality of the males; and that the second must be materially modified by the various influences which relatively determine the placing of males and females in Asylums. We have already seen (p. vi.), that neither from the numbers resident therein can any safe deduction be made of the relative tendency of the sexes to insanity. Something must apparently depend on national character, education, and occupation, and a good deal on the statutory system under which patients are placed in asylums.

The subjoined Table shows the relation of male to female pauperism, and of male to female pauper lunacy in all Scotland in the five years 1863-1867.

AT 1ST JANUARY.	Proportion of Female Paupers to every 100 Male Paupers.	Proportion of Female Pauper Lunatics to every 100 Male Pauper Lunatics.
1863,	288.8	118.6
1864,	279.3	117.7
1865,	288.3	117.7
1866,	281.4	117.3
1867,	281.1	116.5

In the proportion of pauper lunatics to the population, great discrepancies occur in different counties, which must be dependent (1) on differences in the constitution of the inhabitants; (2) on differ-

ences in their education and mental culture; (3) on different degrees of social intercourse, and in the amount and nature of their occupations; and (4) on differences in their pecuniary position. These discrepancies, however, as manifested in the table, p. xxxv., are so various and manifold as to render it difficult to maintain that there is a greater extent of pauper lunacy among a manufacturing or agricultural population, or among people of Saxon or Celtic race. As a rule, however, it may be assumed that there is a greater degree of mental activity among an urban and manufacturing population, than among one which is chiefly agricultural, and to this fact may possibly be ascribed the more frequent *occurrence* of insanity among the former. But it must also be taken into account that the increase of lunacy is found chiefly among the lower classes of the population, which neither in town nor country display much mental activity, but which are more exposed in urban and manufacturing than in pastoral and agricultural communities to overcrowding, impure air, exhausting labour, insufficient diet, abuse of stimulants, and contagious diseases.

The following Table shows the proportion per 1000 of male and female patients in asylums in England and Scotland at 1st January, 1867:—

		Private Patients.		Pauper Patients.	
		M.	F.	M.	F.
England	- -	538	462	452	548
Scotland	- -	510	490	471	529

On the results of this year, therefore, there is, in both countries, a preponderance of males among the private patients, and of females among paupers; but in both cases the divergence is less marked in Scotland than in England.

(b.) *The comparative mortality in Scotch and English Asylums in the five years, 1862-1866, on the average numbers resident.*

YEARS.	SCOTLAND.			ENGLAND.		
	Male Mortality.	Female Mortality.	Both Sexes.	Male Mortality.	Female Mortality.	Both Sexes.
1862	10·54	8·64	9·53	11·67	8·14	9·81
1863	8·79	7·53	8·13	12·09	7·83	9·81
1864	8·74	7·40	8·03	12·77	9·42	10·99
1865	7·56	6·90	7·21	12·85	8·49	10·53
1866	8·72	7·98	8·33	13·09	8·58	10·68
Average,	8·84	7·69	8·24	12·51	8·50	10·39

The figures from which these results are deduced show that of every 1000 patients who die in Scotch asylums, 507 are males, and 493 females; and that of every 1000 who die in English asylums, 566 are males, and 434 females. In French asylums the average mortality for the years 1854-1866 was 14·03 per cent.; and the deaths of male patients were to those of females as 131 to 100. Or otherwise stated, of every 1000 patients who died, 568 were males and 432 females, a result nearly identical with that of the English asylums.

These results show that the mortality in Scotch asylums will compare favourably with that in English and French establishments. The smaller male mortality in Scotland is particularly remarkable, but when the deductions are drawn from a longer series of years, the male mortality in the Scotch asylums rises to 523 in every 1000 deaths.

The percentage of distribution of patients in Scotland would almost shew that the placing of the insane poor as boarders in villages is on the decrease, and that the proportion of the several means of distribution is being gradually assimilated to that in England.

Table shewing the distribution per cent. of the lunatic population of Scotland in the eight years, 1859-66.

	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.
In Royal and District Asylums	35·4	37·2	38·9	39·2	41·0	41·5	42·6	44·3
In Private Asylums .	12·0	12·2	12·3	12·6	12·0	11·1	9·8	9·4
In Parochial Asylums and Lunatic Wards of Poor-houses	16·3	16·2	16·0	16·2	15·7	16·9	18·2	18·2
In Private Dwellings .	36·2	34·2	32·7	31·9	31·2	30·4	29·3	28·1

The most notable features of this table are the steadily increasing proportion of patients under treatment in royal and district asylums, and the corresponding steady decrease of that of those in private dwellings.

The question of the insane in private dwellings is thus temperately argued by the Commissioners:—

In the appendix will be found reports by Dr. Mitchell and Dr. Paterson on the condition of the single patients visited by these gentlemen in their respective districts. We are fully satisfied that it

is impossible to place all lunatics in asylums ; some must, of necessity, be treated and cared for at home ; and, accordingly, the question with which we have chiefly to do, is not whether asylum treatment is preferable to that of a private dwelling, but whether a sufficient guarantee against mismanagement or neglect in private dwellings is afforded by the supervision which is now in operation. In former reports we pointed out that our supervision does not extend to private patients living in their own families ; and that we cannot be held responsible for the condition of those boarded with strangers who have not been brought under our cognizance. It is undeniable that it is among such patients that cases of gross neglect and maltreatment are now almost exclusively found, and from this fact we draw the conclusion that the supervision which we exercise over pauper patients in private dwellings must be attended with no small degree of benefit.

Even, however, in cases of great wretchedness, in which our powers of interference cannot be called in question, we have felt doubts in exercising them by removal to an asylum, until every endeavour had failed to effect satisfactory improvement at home. We have seen that death not unfrequently takes place within a short time after the admission of such cases into asylums, and we have asked ourselves whether it were possible that this result could be ascribed to the change in the treatment and surroundings of the patient. Could it be that the constitution had become habituated to the wretchedness in which many years had been passed, and that the change to the comforts, but at the same time to the bustle and discipline of an asylum, told injuriously on the enfeebled vital powers ? This question has been very carefully considered by Dr. Mitchell in a portion of his report.

The public asylums in Scotland consist of :—

1. The Royal and District (new) Asylums.
2. The Parochial Asylums.
3. The lunatic wards of poor-houses.

Of the state of the Royal and District Asylums during the year 1867, the Commissioners report, on the whole, favourably.

The following table shows the average mortality on the average numbers resident during a series of years in each of the asylums named :—

ASYLUMS.	Average Number Resident.		Number of years on which average is taken.	Average percentage of deaths on Number Resident.	
	Male.	Female.		Male.	Female.
1. Aberdeen Royal Asylum, .	157.4	179.3	10	7.2	4.9
2. Argyll District Asylum, . .	57.8	56.3	5	8.3	3.2
3. Banff District Asylum, . .	23.6	33.0	3	9.9	3.0
4. Dumfries Royal Asylum, .	203.7	151.5	10	7.1	7.0
5. Dundee Royal Asylum, . .	103.0	92.9	10	6.4	3.8
6. Edinburgh Royal Asylum, .	342.2	340.1	10	11.9	7.4
7. Elgin District Asylum, . .	31.4	31.1	10	7.3	10.3
8. Fife District Asylum, . . .	86.0	84.7	2	5.8	4.7
9. Glasgow Royal Asylum, . .	257.3	244.1	10	9.3	9.1
10. Haddington District Asylum	20.2	22.0	2	7.4	9.1
11. Inverness District Asylum, .	101.9	97.9	4	4.1	9.9
12. Montrose Royal Asylum, .	179.5	238.9	10	10.2	9.9
13. Perth Royal Asylum, . . .	73.5	72.3	10	6.8	4.3
14. Perth District Asylum, . .	94.7	97.8	4	8.7	9.2

The per-centage of recoveries on the admissions was as follows, but these results, owing chiefly to the disturbing influence of transfers, do not at present afford reliable data for estimating the effects of asylum treatment :—

Years	Male	Female
1858	33.6	40.3
1859	32.1	40.8
1860	37.7	40.1
1861	39.8	41.1
1862	34.9	42.4
1863	32.8	40.8
1864	30.5	31.9
1865	36.6	36.6
1866	29.1	34.1
1867	33.0	39.6

The private asylums in Scotland are thirteen in number, several of which receive pauper as well as private patients. The total number of inmates in these houses is 537. The reports on the larger houses which receive paupers also are most unfavourable. At Newbigging House the Commissioners have withdrawn their license as regards the male patients. Saughton Hall receives again its just praise.

The licensed lunatic wards in workhouses in Scotland are fifteen in number, and contain 350 patients in all. The reports on the condition of these wards are very creditable to the parochial authorities.

The following table shows the proportion of deaths per cent. in the average numbers resident in lunatic wards of poor-houses, in each year from 1858 to 1867:—

Years.	Male.	Female.
1858	9.9	8.2
1859	14.7	5.7
1860	6.5	7.9
1861	16.2	11.2
1862	8.6	10.9
1863	8.2	9.1
1864	7.9	7.6
1865	5.9	4.0
1866	7.8	5.2
1867	10.9	6.9

III. *Ireland.*

The seventeenth report of the Inspectors of asylums in Ireland, addressed to the Lord Lieutenant, contains a careful account of the condition during the year of the several district asylums, of the lunatics in poor-houses and in gaols, as also of the central asylum for criminals at Dundrum, and of the private asylums.

The inspectors call attention to an interesting return of the number of lunatics at large, that is, of those who are not placed in any institution for the care and treatment of insane persons, but who are living with and maintained by relatives or friends, or wandering without any fixed abode, and subsisting on charity.

This latter return, the importance of which, in relation to the pro-

vision of additional accommodation, cannot be too highly estimated, has been obtained, as on former occasions, through the kindness of the Inspector-General of the Royal Irish constabulary, who issued an order for collecting the desired information according to forms prepared by us; and from the way in which the force is distributed over the country in upwards of 1,500 districts and sub-districts, as well as from the general intelligence and accurate local knowledge of its members, we are satisfied that from no other source could so complete and reliable information be obtained; when also it is understood that from each of these 1,500 divisions or localities a separate return was supplied, with the name, residence, and other particulars of each lunatic, the advantages thereof for practical purposes will be at once apparent, especially as the most recent information of the kind, previously obtained, dates so far back as 1863, since when many changes have taken place, which is shown by a comparison of the two returns; and the older return would therefore only mislead if relied upon in calculating the additional amount of accommodation required to be provided.

The observations we have made, with regard to the satisfactory nature of the returns supplied to us by the constabulary, apply with equal force to those which the Commissioners of the Metropolitan Police caused to be collected in Dublin at our request; it must at the same time be remembered that the difficulty of getting information relative to any lunatics living with their families or friends must necessarily be much greater in Dublin than in the country, where rumour or common report would generally guide the collectors in making their inquiries.

These returns give the total number of lunatics in Ireland at large and uncertified, at 6,564 (3,847 males and 2,717 females).

The total number of lunatics in Ireland on the 31st December, 1867, is shewn in the following table:—

In Public Asylums,	5,212
In Private do.,	626
In Gaols,	334
In Poorhouses,	2,705
In Lucan, supported by Government, . .	51
In Central Asylum for Criminal Lunatics, .	158

Total number of Registered Lunatics,	9,086
Lunatics at large,	6,564

Total number of insane in Ireland .	15,650
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This shows an increase of 124 registered lunatics for the year. The total increase on the number resident in asylums, including the private licensed houses and central asylum, amounts to 181, there having been a diminution of 46 in poor-houses and gaols, and 11 Government patients at Lucan.

The Inspectors give the following analysis of the yearly returns from the Irish district asylums:—

From an analysis of the present returns, it appears that there were 5,070 lunatic inmates resident in district asylums on the 31st December, 1866, and that there were admitted in 1867, 1,527 patients, giving a total of 6,597 under treatment during the year; of whom 638 were discharged recovered; 179 improved; 97 unimproved; and that 465 deaths occurred. A marked improvement appears in the percentage of recoveries on the number admitted; the percentage last year being 41·78 as against 37·50 the previous year. This is a very satisfactory result. There has at the same time been a considerable increase in the death rate, the total number of deaths being 465 for the past, and 409 for the previous year, or 2 per cent. in favour of the former year.

There has, nevertheless, been no exceptional cause of mortality, and on the whole the sanitary condition of asylums must be regarded as satisfactory, the explanation of the higher death rate being to be found in the fact that, owing in a great measure to the unprecedented severity of the weather in the spring, a greater number of old and effete cases succumbed during 1867 than in the previous year in several asylums, as at Richmond, Maryborough, Killarney, Clonmel additional asylum, and Carlow; 212 deaths having occurred in these four asylums, on a daily average of 1,533 patients, being 14 per cent., or 6 per cent. beyond what is considered a favourable average. Only 4 deaths from accidental causes or suicide occurred—viz., at Ballinasloe, Londonderry, Mullingar, and Sligo; but as they will be referred to under the head of each asylum, it is unnecessary to enter into the particulars, here.

The Inspectors recommend the establishment in Ireland of special asylums for harmless chronic cases of insanity.

In our last report when speaking of the distinctive character of the Clonmel Auxiliary Asylum, as an institution exclusively devoted to the reception of chronic and incurable cases of insanity, we adverted to the provision contained in the Act 8 & 9 Vic., c. 107, sec. 15, for the establishment of asylums of the above nature; observing that when the accommodation of lunatics in general has been effected by

the works now in progress, it will probably be found expedient to put the above provision in motion, that by establishing inexpensive refuges for the incurably insane the District Asylums may be left free scope to fulfil their true object of hospitals for the treatment and cure of lunacy—a position which most of them are far from occupying at present, owing to the fact that they contain 70 per cent. of chronic and incurable cases. It may then become a subject for consideration how far the poorhouses should be relieved from the insane classes at present located in them.

Of the licensed Hospitals in Ireland the Inspectors speak most favourably.

As regards superiority of arrangement, order, cleanliness, and comfort, as well as the kind and judicious treatment of their inmates, we would, amongst others, particularise those establishments which are of a charitable nature, or in which the patients pay either wholly or in part for their maintenance, namely, St. Patrick's or Swift's hospital, St. Vincent's asylum for females, which is under the direction and management of a religious community, and Bloomfield Retreat, managed by the Society of Friends.

Neither of these asylums are maintained for the purposes of profit, but are simply self-supporting, with the aid of such charitable donations or bequests as have been made to them, either on their foundation or subsequently. The benevolent intentions of their founders or benefactors have been well repaid by the good which they have done in the alleviation of much human suffering, and the improved condition of so large a number of the insane—these three refuges containing between them 265 lunatics.

Lastly, of the private asylums in Ireland they add :—

While observing that many of the licensed houses are well conducted, and the patients in them treated with kindness and consideration, we at the same time feel there is much room for improvement, and were it not for our constant inspections of such establishments, they would, undoubtedly, soon lapse into a very unsatisfactory state.

The increase in the number of patients admitted into licensed houses, noted from year to year, continues, though not to so great an extent as heretofore; still, within the last three years, the inmates have had an accession of 86 added to their numbers. We give a summary of the admissions, discharges, and deaths, the details of which will, as usual, be found in the Appendix.

	Males.	Females.	Total
Remaining in Asylums on 31st December, 1866 - - - - -	293	320	613
Admitted during the year ending 31st December, 1867 - - - - -	79	115	194
	---	---	---
Total number under treatment during the year	372	435	807
	Males.	Females.	Total.
Discharged—recovered - 40 33 73			
„ not recovered 18 47 65			
Died - - - 23 19 42			
Escaped - - - 1 0 1			
	---	---	---
	82	99	181
	---	---	---
Remaining on 31st December, 1867 - - -	290	336	626

These figures support the fact frequently observed upon by us, that while the mortality in private licensed houses is much less, the percentage of cures, at the same time, falls far short of that which obtains in public asylums.

C. L. R.

NOTES.

The following articles from the *Pall Mall Gazette* and *The Times* are deserving of a place here as able contributions to the history of THE STATE OF LUNACY, in 1867:—

1.—*The Pall Mall Gazette on the Alleged Increase of Insanity.*

THERE is a very common notion that insanity has of late years much increased in this country. The idea is, we believe, chiefly traceable to the official publication, from time to time, of the number of insane persons supported out of the poor rates. Pauper insanity forms so large a portion of the whole amount of English insanity that any serious change in the parish lists of lunatics and idiots will materially affect the total result. The Poor Law Office has published for a series of years, rather fitfully, as the annexed table will show, in the earlier time, but subsequently with greater frequency, the statistics which must be our guide in this inquiry:—

Number of Insane Paupers officially recorded other than those chargeable to Counties or Boroughs, on the 1st day of January in the years named.

Years.	Population of England and Wales.	Recorded Number of Insane Paupers.	Years.	Population of England and Wales.	Recorded Number of Insane Paupers.
1836*	14,928,000	13,667	1862	20,336,000	34,271
1842*	16,130,000	15,914	1863	20,554,000	36,158
1843*	16,332,000	16,764	1864	20,772,000	37,576
1844*	16,535,000	17,355	1865	20,991,000	38,487
1857	19,251,000	27,693	1866	21,210,000	39,827
1859	19,687,000	30,318	1867	21,430,000	41,276
1860	19,903,000	31,543	1868	21,649,000	43,158
1861	20,119,000	32,920			

* In 1836 the return was made in respect of a given day of July; 1842-44 for a day in August.

Comparing the last return with the first in the table, we find that in the interval of thirty-two years, 1836-1868, the recorded number of pauper lunatics and idiots has increased upwards of 210 per cent. — an increase which, of course, is out of all proportion to the growth of the population in the time. Barely two-thirds of the kingdom had been formed into unions in 1836, and several years subsequently we find the Commissioners in Lunacy complaining of the omission of numbers from the parochial officers' returns. However, the figures for 1836, whatever be their defects, show the proportion of the known insane poor to every 10,000 of the population to have been 9·2. In 1844—that is to say, eight years afterwards—the ratio had risen to 10·5. Speaking of private as well as pauper patients, the Commissioners observed in their report for 1847 :—"There are in England and Wales alone, according even to the returns, more than 23,000 persons of unsound mind. These returns, however, are notoriously imperfect, falling far short of the actual amount, and they do not, moreover, embrace the whole of a numerous class, who are termed imbecile persons, having been so from birth or become so from senility"—persons (the Commissioners state) who are incapable of managing their own affairs efficiently, being on the verge of idiocy. They placed the number of pauper patients in the same year at 18,000, and the patients of the higher and middle classes at 5,000. The visiting Commissioners estimated the insane in workhouses to have been "at least one-third over the number returned by the parish officers." Individuals whom the Commissioners said were on "the verge of idiocy" must, we imagine, be of those who, or whose maladies, were described in a subsequent return by such loose and unscientific terms as "feeble," "fits," "idiotic fits," "mental weakness," "semi-idiot," "silly," "simple," "weak," &c.

The Poor Law authorities seem to have printed no return between 1844 and 1857. At the last date the numbers had risen to 27,693, or 14·4 per 10,000 of population. But in 1852 the Commissioners in Lunacy are again found explaining the apparent increase of insanity. The newly prescribed quarterly visits of the union medical officers to the insane poor cannot fail, the Commissioners thought, to bring to light numerous cases of lunacy and idiocy "to be found among paupers who are living at large with relatives or friends," was given as one reason for a fuller record. Then people who themselves had never had parish relief "have been permitted to place lunatic relatives in the county asylum under an arrangement with the guardians for afterwards reimbursing to the parish the whole or part of their charge for their maintenance," and thus appear to have entered on the guardian's list. Another cause of increase was found in the practice of transferring lunatics from the private patient to the pauper class. "Indeed, it may be said with truth that, except in what are termed the opulent classes, any protracted attack of insanity, from the heavy expenses which its treatment entails, and the fatal interruption which it causes of everything like active industry, seldom fails to reduce its immediate victims, and generally also their families, to poverty, and ultimately to pauperism." The Commissioners further notice as a significant fact that the increase in the number of private patients was "at a much less rapid rate than the number of lunatic paupers." Coming to 1861 the insane paupers had reached 32,920, or 16·4 per 10,000 of population.

In the report of the same year the Commissioners again notice the agencies at work to swell, apparently, the ranks of the mentally afflicted: these are:—1. The large number of cases previously unreported, and only recently brought under observation. 2. The increased number of those sent to asylums. 3. The prolongation of their life when brought under care.

It is also shown in this report that in about thirty large parishes and unions only 408 insane paupers were stated to have been residing with their friends in 1852; but that in 1860, under the paid quarterly visits of the local medical officers, 935 paupers were entered. Some places which returned none of this class in 1862 recorded a large number in 1860; like Liverpool, whose return was "nil" for 1852, but included fifty-five persons for 1860.

It was frequently the practice of the parish officers to keep their lunatic or idiot poor at home, not sending them to the workhouse, for fear of the patients attracting the notice of the visiting Commissioners, who might order their removal to an asylum, and thus put the parish to a far heavier outlay. To remedy this abuse the Irremovable Poor Act of 1861 empowered the guardians to charge the maintenance of asylum paupers on the union common fund, instead of the parish in which they were settled.

The provision was immediately effective. When last the parishes supported their asylum paupers, that is, in 1861, the number of patients thus housed was 18,262; but at the end of the six years 1862-67 the number amounted to 24,379. The annual expense for 1861 was £443,892; for 1867 it was £607,292, or nearly 50 per cent. more. From 1862 to 1868 the general pauper insanity augmented at the rate of 1,500 yearly on the average, the whole number returned at the commencement of the present year being 43,158, or 19·9 per 10,000. But in addition to the insane relieved at the expense of the poor rates, there were on the 1st of January last 1,766 chargeable to the counties and boroughs of England and Wales, thus carrying the total of the rate supported up to 44,924, or 20·8 per 10,000 of population, or say $\frac{2}{10}$ per cent.

After a careful consideration of the official reports and returns, it appears to us that there is no evidence of an increase of pauper lunacy, but abundant proof of a much fuller and more careful record of the afflicted poor in this country.

2.—*The Times on the Pauper Lunacy of 1867.*

PAUPER INSANITY.—The annual return of insane paupers in England and Wales shows that in the 1,040,103 paupers chargeable to the poor-rates on the 1st of January, 1868, 43,158 were insane persons—that is, 4·3 per cent. Five years previously the number of insane paupers was only 36,158, being but 3·17 per cent. of the then whole number of paupers. On the 1st of January, 1863, 15,790 were males and 20,361 females; on the 1st of January, 1868, 19,033 were males and 24,125 females. The return for 1868 shows 24,297 in county or borough lunatic asylums, 1,348 in registered hospitals or licensed houses, 10,684 in workhouses, 1,045 in lodgings or boarded out, and 5,784 residing with relatives; in 1863 the number in county or borough lunatic asylums was only 19,127. As in 1863, so in 1868, the insane are unequally distributed over the country. In the metropolis, in 1863, out of 106,407 paupers, no less than 5,701 were insane; in 1868 the number is only 7,063 out of 163,179, or about the average of the whole kingdom. The south-western division in 1863, with a rather larger number of paupers than in the metropolis, had only 3,635 of them insane; in 1868 the south-western paupers are 114,784, and the insane among them still only 4,165. In the west midland division in 1863 the total number of paupers was almost precisely the same as in the south-western, but the insane paupers were as many as 4,631; and in 1868 the total number, 114,403, is again almost the same as in the south-west, but the insane are as many as 5,628. The north-western division (Lancashire and Cheshire) has also in 1868 almost the same number of paupers as in the south-western division, but the number of insane paupers among the whole 114,578 is as large as 5,329. In Wales, in 1863, the insane were only 2,349 in a total of 80,547, and in 1868 they have only increased to 2,828 in 82,241. In the eastern counties they advanced from 2,368 in 81,279 in 1863 to 2,666 in 81,287 in 1868—a proportion greatly below the average of the kingdom. The south-midland division has only 3,157 insane in a total of 84,594 paupers; the north-midland has 2,824 in a total of only 57,549. The proportion of the insane among the paupers in Yorkshire, in the northern division and in the south-eastern, does not differ very greatly from the average of England, but all of them are below it. But as insanity is a cause of pauperism not varying, like other causes of pauperism, with the prosperity of different districts, it may be considered that the districts that have least pauperism will naturally have the largest proportion of it pauper insanity; and, therefore, it may be more accurate to com-

pare the number of insane paupers with the number of the population. In all England and Wales the number of insane paupers on the 1st of January, 1863, was 2·15 per thousand of the population as enumerated at the Census in 1861. Now, the metropolis, which (for the purpose of these returns) had in 1861 2,802 thousands of population, has in 1868 7,063 insane paupers—an excess even if we allow for subsequent increase of population. The west-midland division, with 2,435 thousands of population in 1861, has 5,628 insane paupers in 1868; the south-western, with 1,833 thousands, 4,165; the south-eastern, with 1,806 thousands, 4,361; the south-midland, with 1,295 thousands, 3,157; the eastern, with 1,142 thousands, 2,666. All these have more than the average number of insane paupers in their population. On the other hand, the north-western division, with 2,923 thousands of population in 1861, has only 5,329 insane paupers; Yorkshire, with 1,899 thousands, 3,154; the northern, with 1,151 thousands, 1,983. These have less than the average amount of pauper insanity. The north-midland and the Welsh divisions are so near the average as not to require mention. The number of insane paupers in England and Wales on the 1st of January last was 2 per 1,000 of the then estimated population; five years before it was less than 1·8 per 1,000.

3.—*The Times on the Criminal Lunacy of 1867.*

CRIMINAL LUNATICS.—By the Act 30th of Victoria, cap. 12, which came into operation on the 12th of April, 1867, criminal lunatics whose term of punishment has expired are not afterwards to be considered as criminals, but are to be treated as pauper lunatics. The numbers under detention in the different asylums, hospitals, and licensed houses of England and Wales in the year 1867, was 1,244. The Act affected the cases of 571 of this number, and the effect of its application has been to reduce those remaining under detention as criminal lunatics at the end of the year, to 537, in place of 1,108. The number committed during the year 1866-7 exceeded by 57, or more than 50 per cent., the number in the previous year. Of the total number of lunatics under detention 155, or 12·4 per cent., were for murder, against 12·8 in the preceding year; 11, or 0·9 per cent., were for concealment of birth and infanticide, the same in both years; 143, or 11·4 per cent were for attempts to murder, maiming, stabbing, &c., and manslaughter; in the previous year the proportion was 12·4 per cent.; 312, or more than 25 per cent., were for larceny and petty theft, against 24·4 per cent. in 1865-6; 58, or 4·7 per cent., were for arson or malicious burning, against 4·5 per cent. in 1865-6. Of the 1,244 lunatics in custody, 799, or 64 per cent., became insane after trial; 175, or 14 per cent., were found insane; and 211, or 17 per cent., were acquitted insane. Of those found insane 52, or 29·7 per cent., were for murder; and 40, or 22·8 per cent., were for attempts to murder, &c. Of those acquitted insane 90, or 42·6 per cent., were for murder, and 58, or 27·5 per cent., for attempts to murder, &c. Of those becoming insane after trial, 11, or 1·4 per cent., were for murder; and 29, or 3·6 per cent., for attempts to murder, &c.; 42, or 5·2 per cent., were for assaults; 61, or 7·6 per cent., for burglary or housebreaking; and 276, or 34·6 per cent., were for larceny and petty thefts. Of every 100 criminal lunatics, 15·8 were under detention for one year and under; 9·8 two years and above one; 9·7, three years and above two; 15, five years and above three; 22·5, ten years and above five; 13·2, fifteen years and above ten; 6·8, twenty years and above fifteen; and 7·2 above 20 years. The total charge for our criminal lunatics was £47,583 in 1866-7, against £45,037 in 1865-6; of the total sum last year £5,587, or 12 per cent., was chargeable to county rates; £928, or 2 per cent., to borough rates or funds; £5,074, or 11 per cent., to parish rates; £33,864, or 71 per cent., to public revenues; and £2,129, or 4 per cent., to private funds. Mr. Leslie reports that the average cost per head in the State Asylum at Broadmoor was £59 14s. against £56 7s. in 1865-6. The average for the 39 county asylums was £24 10s. 9d., against £23 5s. 10d. in 1865-6. For five city and borough asylums the average was £29 18s. 10d. In the hospitals

and licensed houses, in which—with the exception of Fisherton-house, where the expenses fall almost entirely on the county rates and Her Majesty's Treasury—the charges are chiefly defrayed from private funds, the cost per head varied from £30 6s. 8d. in Northampton Hospital, to £531 16s. at Ticehurst Asylum. Carmarthen County Asylum and Hull Borough Asylum appear for the first time in the list.

Croonian Lectures on Matter and Force. Given at the Royal College of Physicians in 1868. By HENRY BENCE JONES, M.D., F.R.S. Churchill & Sons. 1868.

The main object of these three lectures is to lessen the confusion which exists in the use of the word force, and to make clear the idea of the inseparability of matter and force. In the first lecture the author briefly sketches the history of opinion in the biological sciences regarding the union of ponderable matter and force, pointing out three distinct stages, or epochs, of thought. The first, or primitive stage, is that of complete separation between the ideas of ponderable matter and force; the second is marked by the incomplete separation between the ideas of ponderable matter and force, force being held to be imponderable matter, or to be inseparably united with it; and the third, or modern epoch, is characterised by the complete union, or perfect inseparability, between the ideas of ponderable matter and force. In the second lecture he deals with the first and second stage of our ideas regarding the union of ponderable matter and force in the biological sciences; and in the last and most important lecture, to which the other two lead up, he treats of the third stage of our ideas regarding the union of ponderable matter and force in the biological sciences. Here he indicates, in an extremely suggestive manner, the new paths for investigation, and the new glimpses of truth, which the doctrine of the union of matter and force, and the principle of the conservation of energy, open up. These must, he believes, lead before long to an entire change, not only in physiology and pathology, but in therapeutics.

“At present our knowledge is very confused and uncertain as to how and where medicines act. We almost believe that our medicines have the power, not only of creating, but of annihilating force; and we almost think that they are able to select the part on which they will act, whilst they leave other parts of the body entirely free from their presence.

“But the law of the conservation of energy requires us to believe that no food and no medicine can cause the creation or the destruction of the slightest particle of energy. The amount of conversion of potential into actual energy may be made more or less. The conversion of one kind of motion into another kind may be diminished or increased, but no annihilation nor creation of force is possible.

“The medicines which are taken into the body possess chemical energies by which, wherever they go, they take part in the motions of oxidation and nutrition which are going on there; and, according to their chemical properties, they add to the motions, or increase the resistance to the motions that constitute disease.

“The questions, then, which must be answered before we can obtain clear ideas of the actions of medicines in the body are: (1.) What are the different motions which occur in the body? and how are these different motions related to one another? and, (2.) How do different agents or medicines increase or diminish these different motions which occur in the different organs and textures?”

Dr. Bence Jones's lectures will not fail to repay the reader's attentive perusal. There is an appendix to the volume, containing two lectures delivered at the Royal Institution, and a paper by Dr. Bence Jones from the *Proceedings of the Royal Society*. One of the lectures is by Du Bois Reymond, “On the Time required for the transmission of Volition and Sensation through the Nerves,” and the other by Professor Frankland, “On the Source of Muscular Power;” while Dr. Bence Jones's paper is “On the Rate of Passage of Crystalloids into and out of the Vascular and Non-Vascular Textures of the Body.”

PART III.—QUARTERLY REPORT ON THE PROGRESS OF PSYCHOLOGICAL MEDICINE.

I. German Psychological Literature.

By JOHN SIBBALD, M.D. Edin., Medical Superintendent of the Argyll
District Asylum, Lochgilphead.

(*Concluded from the Journal of Mental Science, July, 1868, page 274.*)

The volume of the *Irrenfreund* commences with an article on the *writing of the insane*. The following conclusions are quoted from a pamphlet by Dr. Th. Güntz:—"1. The writing of the insane exhibits various deviations from what is normal, both as regards quantity and quality. 2. These deviations are important in so far as they frequently give the first indication of the commencement of insanity. 3. They often give the best key to the aetiology, genesis, and duration of the disease. 4. They frequently complete or correct our conception of the nature of the disease. 5. They furnish a certain test of the advent and progress of convalescence."

Hallucinations and Illusions.—From a paper on this subject, by Dr. Brosius, we make the following extract:—"Illusion is defined as a perverted apprehension of the character and condition of external objects,* as a sensory impression excited from without, but not corresponding to the external stimulus†, or as a false interpretation of external objects.‡ The basis, the point of departure of a hallucination is a *subjective*, the illusion is an *objective* sensation. In the one case there is nothing palpable, external, real; but it is perceived as if it were real. In the other there is an external something, but it is wrongly perceived; a false perception follows the impression on the nerves of sense. It is a hallucination if one hears talking when no one speaks, an illusion if one mistakes what has been said. The cause of the illusion lies in the condition of the organ of sense or of the mind. The illusions of the senses of distance may have their primary origin in the nature of the medium through which the impression

* Hagen, die Sinnestäuschungen § 10

† Leubuscher, über die Entstehung der Sinnestäuschung, p. 21.

‡ Griesinger, 2 Aufl., p. 85.

reaches them. But this alone is never the cause of the deception, which always requires in the first place a special psychical impulse.

“ Our conscious excitements of the senses, or sensations, first become sharp, distinct, and lively by means of the so-called apperception; that is, by their fusion with ideas. Without the accompanying imagination, the superadding of allied notions, there can be no, or at least no distinct sensation produced by a sensory impression. This is evident to all from experience of the known conditions of abstraction, or absence of mind. So soon as the sensory impression becomes an idea this idea takes to itself other ideas, previously formed, by means of which the sensation becomes more complete. Thus the apperception renders the sensation at once distinct and accurate. But if from any cause, the ideas which would otherwise have associated themselves with the sensory impression are suppressed; if the elements which the allied ideas contribute to the perception are wanting, it *appears* to be different from ordinary. The impression deviates from the rule; it does not correspond to the external stimulus or the actual relations of the object from which the sensory impression proceeds—it is illusion. This deficiency then, the want of corresponding ideas in a sensory excitement, is an element (the negative) in illusion.

“ The recognition of an object is effected by the union of the impression of the moment with the idea of the object. If a patient does not recognise persons and objects with which he had previously been familiar, he must for the time be wanting in the idea or recollection. Thus, if he takes them for certain *other* persons and objects, it is necessary for such conception that a special idea, instead of that allied with or corresponding to the object, should associate itself with it. This unallied special idea is the second (the positive) psychical element in illusion, which determines its quality and nature. But the occurrence of illusion depends especially upon the negative element. Sensory impressions are very easily affected by simultaneous active ideas predominating in consciousness. Therefore, in conditions of anxiety, mistrust, or joy, expectation or hope, sensory impressions are easily perceived in an illusory manner. (*Schiller's Erwartung, Goethe's Erbkönig*). ”

The paper consists chiefly of a systematic discussion of hallucinations and illusions as symptoms of insanity, and the author necessarily recognises the fact that conditions are frequently met with in which it is difficult if not impossible to decide the category to which they ought to be referred. The concluding remark may be quoted :—“ It is to be borne in mind that delusions of the senses alone not rarely constitute almost the whole insanity of some patients. And they are frequently the nucleus or basis of seemingly different conditions, such as the so-called *Mania epileptica* and *Mania transitoria*, which are not genuine mania, but, in the majority of cases at least, are dreamlike conditions, distressing melancholic excitements, depending upon hallucinations and illusions. In some forms of insanity, indeed, the

exacerbations very often depend on the occurrence of delusions, just as the so-called fixed ideas often do in conditions of mental debility."

Non Restraint and Lunatic Colonies.—"Both of these systems," says Dr. Koster, "have for some years distracted the alienistic world; and if one adds to them the question of cliniques for insanity we have the three cardinal points to which practical psychiatry has of late years been turning, if one does not also count the special department of asylum architecture. There is scarcely any system which has received such general opposition in Germany, and which has in such proportionally short time gained a secure footing as the non-restraint, or, we may say, the 'as much as possible non-restraint' (möglichst zwangslöse) treatment of the insane. I am acquainted with alienists who, six or eight years ago, cared little to know anything of this treatment, and who are at present its firm and zealous adherents and apostles. And, indeed, there is no longer any one who casts it aside, or who does not seek to carry it out with all the means at his disposal. The history of lunatic colonies and of cliniques of insanity which have hitherto experienced rather determined opposition may be expected to follow a similar course."

No doubt in Germany Dr. Koster is considered one of the apostles of non-restraint; but he would scarcely be regarded as such were British views of the subject prevalent there. He advocates the disuse of restraint in many cases in which it is still employed by his countrymen; but yet recommends its use in circumstances which have long since been treated here by different and, we believe, better methods. One case of a girl with dirt-eating habits is instanced by him to show the impossibility of doing without it.

"As regards lunatic colonies," he says, "they will, like non-restraint, and in spite of opposing theoretic opinions, gradually gain an entrance and obtain more and more adherents, though at the same time they will be modified by circumstances, and the system will sooner or later, and with greater or less completeness, be ultimately adopted, though, of course, exhibiting local differences in individual instances."

"In Marsberg there was, at an early period, a beginning made of what may be regarded as a colony. In 1830 there were patients placed and tended in the neighbouring country town. Recently, in 1850, and more recently, in consequence of the want of room previous to the opening of the Second Westphalian Asylum, there were patients tended by various persons connected with the asylum, and with excellent result. An agricultural colony, such as that of Einum, Clermont, &c., was projected several years ago, principally because the present asylum grounds are not suitable for the erection of sufficient buildings for the farm, which has of late years been much extended and been very successful. The delay is occasioned by circumstances over which the administration and the authorities have no control. The realisation of the plan will certainly take place in two or three years."

The History of One Possessed, by Dr. A. v. Franque, is the details

of a case of hysterical mania, which occurred in the village of Niederhausen in the Grand Duchy of Nassau, more than twenty years ago. The chief interest of the case lies in the facts that the resources of both medicine and theology were brought energetically to bear on the progress of the case, and that full notes have been preserved. Unfortunately there are too many such cases of more modern date to make it desirable that we should attempt to fill our pages with the details.

Griesinger's Archiv für Psychiatrie und Nervenkrankheiten. Vol. I., Parts 1 and 2.—The loss which our profession and mankind have sustained by the death of Professor Griesinger is referred to in another portion of this Journal. But it may be permitted to one who enjoyed his acquaintance for several years, and latterly his intimate friendship, to devote a few words to his memory. He had attained to the highest place which was open to him as an alienist. He had produced perhaps the greatest systematic treatise on insanity. But his personal bearing was ever more of the learner than the teacher. He was to the last, as he had been at first, the laborious student and observer. Ever occupied with the enlargement of his scientific horizon, he never stopped to mark the height he had attained. The writer once asked him in what sections the last edition of his text book improved upon the previous one? "Ah!" he replied, "it is a mere reprint; the thing is really so bad that it cannot be improved; but I expect soon to write a new one, which I hope may be better." That better one never was written, and never can be. What Griesinger would yet do for our science filled a large space in our visions of its future; that space is now a blank. As a private friend, he was one to be loved.

Two of the papers in the *Archiv*—The Care and Treatment of the Insane in Germany, by the Editor, and a paper on General Paralysis by Dr. Westphal, have been already translated and presented to the readers of this Journal. Among the others the following may be noted :—

Valleix's Painful Spots in Neuralgia, by Professor Romberg. True to its title the *Archiv* commences with a paper on nervous disease uncomplicated with insanity. Valleix, in his "*Traité des Neuralgies*" (1841), denies that external pressure decreases the pain in neuralgia, and refers to 112 cases in which, with one exception, he observed increase of pain in one or more points in the nervous track, which points he therefore named "*points douloureux*." This pain, produced by pressure, is said to be in direct relation to the intensity of the affection. In the paroxysms it increases, and during the intervals it decreases very much. Romberg alludes to the recent researches of Bastien and Vulpian, which bear upon this subject, and also to the observations of Schuh and Hasse, who denied the correctness of Valleix's views. He then proceeds to account for these discrepant opinions, which he regards as having been occasioned by both parties

having left out of consideration the duration of the nervous irritation; and this he considers to be corroborated by the results of the observations of Bastien and Vulpian, and also by recent observations of his own. In a case which came under his care the patient suffered from neuralgia in the region of the left superficial temporal, causing violent pain in the temple, which radiated towards the forehead and occiput, and cramps of the corresponding muscles; in the more violent attacks the convulsions extending to the whole trunk. Relief was only obtained by firm pressure of the left temple against the wooden side of the bed. The author frequently convinced himself that during the first five or six minutes the pain increased in intensity, and subsequently diminished and, simultaneously with the convulsions, disappeared. Cessation of the pressure was followed by return of pain. This primary increase of pain and subsequent cessation of it he believes to have been the cause of the apparently discrepant observations.

Crania Progenea.—Under this title Professor Ludwig Meyer, of Göttingen, describes a malformation of which he details thirteen examples—ten from among living persons, and three museum specimens. In all cases it is associated with idiocy or mental weakness. It consists in an abnormal prominence of the under jaw and of the forehead, a flattening of the head, superiorly and posteriorly, a narrowing of the face, and an abnormal size of the ligamentum nuchae. The author attributes its occurrence to an arrest of development of the occipital bone, by which the growing contents of the skull are forced forwards and downwards. He remarks that he “might also direct attention to definite and unquestionable interferences with the development of the occipital bone which we regard as the prime cause of the malforming process. If it should appear presumptuous to refer these lesions to the injuries which the occiput has suffered during parturition, we may refer for corroboration to Mitchel’s statistical demonstration regarding the relatively frequent concomitance of idiocy with instrumental delivery. But however this may be, it is not easy to overestimate the significance of the progenean skull development as regards cerebral pathology. Whilst I have not succeeded in finding one such malformation among many hundreds of sane persons, there are eleven among about 200 patients in the Göttingen Asylum, and two among a collection of forty skulls belonging to the same institutions. Of these thirteen it was ascertained that by far the greater portion had been insane since childhood.”

Distortions of the Skull.—Meyer has a short paper in the second number of the *Archiv*, which may be more conveniently introduced here—“A numerous series of observations,” he says, “have convinced me that purely mechanical influences produce alterations in the form of the skull much more commonly and more directly than other causes which hitherto, and especially in the ætiology of deformities of the skull, have been adduced, as, for example, the premature union of the sutures. These distorting causes may act either on the external or

internal surface of the cranium, and may either produce the deformity independently, or modifications may be occasioned by the condition of the bones (Rachitis, &c.) From this point of view the manifold deformities of the skull may perhaps be fitly arranged under the following principal forms or types.

"1. Distortion *ab extra*. (a.) The scoliotic cranium, distortion in a lateral or rather diagonal direction, in the same manner as spinal curvature. The lower side of the back of the head where the shoulder is higher is bulging and protrudes further back. In a corresponding manner the position of the parietal protuberance of the same side is altered, and in the more extreme cases the distortion is indicated in the latero-posterior alteration of the frontal protuberances; while the frontal and parietal protuberances as well as the occipital half of the other side appear correspondingly pressed inwards and forwards. Horizontal sections of this skull, indeed, give the impression as if the deformity were produced by traction of the occipital and frontal bones of opposite sides. This form of skull always accompanies curvature of the vertebral column; and in this connection it is distinguished by other peculiarities which have been already noticed by Stern (Müller's Archiv. 1834). The scoliotic skull is, however, also frequent in various degrees among classes of the population, such as smiths, carpenters, and porters, who acquire a habit of carrying their shoulders high. (b.) The compressed skull, in the direction of different axes. As a typical example of this distortion (in the axes of length and height) the progenean variety previously described may be accepted.

"2. Distortion *ab intra*. Hydrocephalic forms of skull. (a.) General hydrocephalic forms of skull produced by hydrocephalus or cerebral hypertrophy, distinguished by prominence of the vault of the skull on all sides of the base, the relatively great height and breadth of the vault, and flatness or, in extreme cases, even concavity of the base, with complete absence of, or much diminished sphenoidal depression. (b.) Partial hydrocephalic skull. Considerable prominence of the base on account of any cause unfavourable to increase of the vault. An example of this form, which is in the collection of the psychiatric clinic at Göttingen, resulted from hydrocephalus of the posterior cornua, where the back of the head was much dilated. There are also several examples of remarkable rachitic skulls, with beetle-formed, down-pressed, and very broad posterior segments of crania. The predominant development of the occiput inferiorly draws the basilar process downwards and somewhat forwards, and thus occasions a steepness of the *sella turcica* (Virchow's Schädelkyphose). No other forms of partial hydrocephalic development have hitherto been observed by me. If the *crania progenea* were not typical examples of the compressed form, they might be regarded as hydrocephalus frontalis and temporalis, with a lateral hydrocephalus occipitalis. The reverse of the hydrocephalic type is furnished by those crania in which there are general or partial arrest of development in the convexity of the skull

and consequent predominance of the base. With these must be classed almost all microcephali—those heads with retracted frontal or temporal region. It appears to me of great advantage that, in clinical demonstrations, these fundamental cranial types should be associated." The author promises in a future number of the "Archiv" to give an illustrated paper, going more into the details of the subject.

Deficiency of the corpus callosum. The next paper is a very carefully-written and well-illustrated description of the brain of a cretin, in which there was only a rudimentary corpus callosum. The preparation had been brought from Zurich, by Professor Griesinger, and had been several years in spirits; but Dr. Julius Sander, the assistant in the clinique for nervous disorders, to whom he entrusted it, has succeeded admirably in presenting an intelligible description. Dr. Sander draws from the consideration of this and the other cases which have been recorded the negative deduction that the corpus callosum is neither the organ of motor co-ordination, nor the seat of the intelligence. The cases which he quotes are recorded by Poterin-Dumontel, Foerg, Reil, Paget, Chatto, Mitchell Henry, and Langdown Down. In three cases in which the organ was altogether absent, the individuals were by no means idiotic, and two of them were employed as messengers. He is inclined to follow Paget in the belief that it merely acts as a medium of communication between the two hemispheres, which without it might act independently of one another.

Public Provision for the Insane in Austria. In 1861 the administration of asylums and the responsibility of providing for the insane in Austria, was handed over by the State, or Imperial authorities, to those of the various districts. Dr. Schlager reviews at some length the present position of matters, and the probable prospects. There is very much to be done to bring things into anything like a proper condition. There are only two well-arranged asylums in the empire, one near Prague, and the other near Vienna. Dr. Schlager advocates the erection of buildings, not to contain more than 500 each, with which he would associate agricultural colonies. Dr. Riedel, with the support of Professors v. Schroff and Leidesdorf, is in favour of an extension of the old German system of large establishments for curables and incurables separately.

Unilateral Atrophy of the Face. Dr. Paul Guttman describes an interesting case of withering of the muscles of the left side of the face. The patient had frequently suffered before she was eleven years of age from toothache of both sides, dependent sometimes on carious teeth, and sometimes, it is said, on rheumatism. At times the cheeks were swollen from the effects of the toothache, but otherwise they had hitherto been always in an apparently healthy condition. Then, without any ascertainable cause, the left cheek began to become paler, and has never since regained its previous healthy red. Soon the cheek began to sink in, but so gradually that medical assistance was not sought for three years. Treatment was then adopted, consisting of

the application of a stimulating linament, and the use of the induced galvanic current regularly for four weeks. Whether this really produced improvement or not, the cheek is said to have become fuller. For the next two years the wasting continued; but for the next, which were also the last two, there has not been any apparent progress. At the time she came to Griesinger's clinique, where Dr. Guttman, as assistant, had her under his care, she appeared, on the right side of the face, to be the girl of eighteen years of age that she was; but on the left side she looked more like fifty years old. On examination, the muscles of the affected part were found atrophied, scarcely any subcutaneous fat existed, and even the bones were smaller than those of the healthy side. The author attributes the atrophy to arrest of development of the vessels of the left side of the face, resulting from irritation of the corresponding vasomotor nerves. Prolonged galvanic stimulation was tried, but without result.

The "Free Treatment." Such is the name which Professor Griesinger proposes to his German brethren for what we have learned to call the "non-restraint system." The new name may take root in the land of its birth, but is not likely to be imported here. The article which is thus entitled is the first in the second number of the *Archiv für Psychiatrie*, and consists of a strenuous advocacy of the "free treatment" which has still to be urged on the attention of the profession in Germany. The arguments in its favour are put by the author with his usual force; and the tone of the paper may be indicated by the following quotation:—

"It used to be said, and it is still said, 'Yes, restrict the application of restraint as far as possible, but do not interdict it altogether.' And yet the free treatment is only truly such when it can be thoroughly carried out, where the patient never sees the instruments of restraint, and knows that they will never be applied, and when the attendants, having completely given up the use of straps and bands, have learned to work naturally by ever gentle means. It is only thus that that other spirit pervades the establishment which is everywhere obtained with the introduction of non-restraint,—that quite different tone, that quite different motive, which so quickly raises everything to a higher level in those establishments where the free treatment has been adopted.

"I have myself made this experiment on two occasions, once in the little asylum at Zurich, and once in the lunatic division of the Royal Charité. Both are sections of large hospitals, and in both the experimental introduction of non-restraint presented difficulties of which no idea can be formed in those establishments which have been erected with direct reference to it. In the Royal Charité there was still felt the influence of an able man personally gentle, but who believed that in the application of restraint, the douche, and other means of intimidation and repression, he possessed the chief remedies in mental therapeutics; and there were current in the institution many stories of their beneficial

application, which, in the absence of very decided convictions of their injurious influence, would have frequently destroyed one's confidence. Yet experience has shown that even in these circumstances with the active support of my younger colleagues, the first negative part of the free treatment, the actual non-restraint, can be completely carried out." It is to be hoped that the German alienists generally will listen to these arguments; and if any words of ours can influence those who still cling to the old method, we would assure them that British alienists would with one voice refuse to return to the use of restraint. They had experience of the *difficulties* of the restraint system; and now that they have had sufficient opportunity of judging of its opposite, non-restraint will be cherished not only on account of its benefit to the insane, but also on account of the comparative ease and satisfaction which it gives to the physician and others under whose care they are placed.

Encephalomalacia and Poisoning with Carbonic Acid Gas.—Dr. Th. Simon has collected several cases of poisoning with this gas, which he believes are sufficient to prove that cerebral softening and apoplexy are directly produced by the poison. He considers, also, that a considerable time elapses between the application of the cause and the appearance of these effects. The only point to be determined is under what circumstances the cause produces such effects.

Aneurysmal Degeneration of the Cortex Cerebri.—Ludwig Meyer describes a case which in its history presents great resemblance to general progressive paralysis. The patient was a young man of about 27 years of age, and generally in sound bodily condition. Of middle height and broad, powerful frame, his general appearance was more than ordinarily robust. The symptoms were at first of a melancholic character, and passed generally through varying conditions of excitement and depression, accompanied by paralytic symptoms of the kind described as general paralysis. At last, after a period of excited dementia, he was found one day speechless, the muscles of the back of the neck firmly contracted, the rest of the muscles lax, especially on the left side of the body, where also there was no sensibility, and on the other side, also, it was almost absent. The pupils were dilated, the temperature low, respiration stertorous, pulse 48 and very small. This condition continued two days, and then death came.

The *post mortem* examination revealed a slight effusion of blood over the upper and anterior surface of the cerebrum, with small points of capillary apoplexy in the corresponding part of the cortical substance. The microscopic examination showed extensive aneurysmal alteration of the capillaries, with fatty degeneration of their walls. Meyer tries to show that, considering the healthy condition of the rest of the body, we must refer the brain disease primarily to the mechanical effect of the great pressure of blood dilating the delicate containing vessels. In criticising his argument, his general pathological views, as they are found in his other writings, must be taken into consideration.

Microcephalic Brains. Dr. Julius Sander gives a careful description of two such brains—one from a patient met with in Griesinger's "Poliklinik," and the other from a preparation in the anatomical museum of Berlin. The latter had been previously described by C. Vogt and Johannes Müller, but not with the completeness of the present memoir; the former was obtained in the autopsy of a child who died about six months old. In life the head presented a strong resemblance to the simian conformation, and was of what is called the Aztek type. After giving careful descriptions of the two specimens, Dr. Sander discusses the question whether the external resemblance to the ape is merely external, or whether the partially developed brain correspondingly points to our alliance with the lower animals. And he shows clearly that this latter deduction is by no means to be drawn from the more complete examination.

Hereditary Syphilis in connection with Insanity. Dr. E. Mendel relates a case in which symptoms of cerebral disturbance exhibited themselves more or less in a girl who ultimately became unmistakably insane and was placed in an asylum in her sixteenth year. She remained there two years and then died, without having suffered from any apparent disease, except the cerebral disturbance which was indicated by her mental condition and convulsions of various kinds. On *post-mortem* examination a pointed exostosis nearly half an inch long was found protruding from the base of the skull about half an inch to the left of the margin of the foramen magnum. There was also thickening of both dura mater and arachnoid and adhesion at one spot to one another, and to the bone. The left lateral ventricle was greatly dilated, and the cerebral substance was much thinned at the posterior and external wall. The membranes were adherent to the brain substance at the spot where they were themselves adherent—at the posterior end of the sagittal suture at the left side. The mother of the girl had secondary syphilis, which she believed to have begun at the commencement of her being pregnant with this child.

The Mode of Examining the Contents of the Cranium. Professor Griesinger describes a mode of investigation, which he has adopted in some cases, especially where tumours of the brain were suspected to exist. It consists in cutting through the calvarium in a line passing vertically over the head from ear to ear. The section is made by the saw passing through both bone and brain, thus making a section of the brain down to the level of the line which, according to the usual method, separates the calvarium from the base of the skull. A similar section is then made in the line of the usual method, but only in its anterior half. The anterior half of the calvarium is thus separated along with the contained portion of brain; and the structures which are exposed may be examined more exactly *in situ* than by the ordinary method. The further removal of the brain is effected by completing the section in the ordinary line, but in this case in the ordinary way, and without dividing the brain at the same time.

The Relation between the temperature of the Body and Epileptiform and Apoplectiform Attacks in Paralytic Insanity. Dr. Westphal adds to his numerous careful investigations of this disease another equally careful on the temperature of the body during the fits. This he finds almost always increased by an attack; and he attributes the elevation, in a large number of cases, to pulmonary affections (pneumonia, bronchitis, &c.) which he finds so generally to follow rapidly on the attacks.

The Annual Meeting of the German Alienists took place last September, in Heppenheim, under the presidency of Dr. Jessen. The papers and discussions were—

1. *The Pathologico-anatomical Basis of General Paralysis*, by Dr. H. Schüle.
2. *The Relation between Life Assurance Associations and Suicide by the Insane*, by Dr. Flemming.
3. *Medico-legal Opinions in Insanity ought only to be given after personal Examination.* Prof. Griesinger.
4. *Malformation of the Skull.* Prof. L. Meyer.
5. *The Regulations for Admission to Asylums.* Prof. Jessen and Dr. Roller.
6. *A Degeneration of the Cartilage of the Nose.* Dr. Köppe.

According to Dr. Schüle, *General Paralysis* depends upon the following conditions:—

1. An *Encephalo-myelitis chronica*, also complicated in a special typical variety with a *Meningitis chronica*.

2. The *Meningitis chronica* is characterised to the naked eye by a yellowish grey opacity covering the affected portions of the brain, and microscopically appears as a considerable cell proliferation, which frequently goes on to the formation of pus.

3. The *Encephalitis* consists (*a*) in a very abundant proliferation of the nuclei of the vessels, both internally and externally, with consequent new formation of vessels, aneurysmal degeneration of some parts of vessels, with obliteration and amyloid degeneration of others; (*b*) in increase of the connective tissue nuclei of the neuroglia, especially about the vessels, and very often connected with their nuclear proliferation, also in another metamorphosis of the intercellular substance of the neuroglia in which it becomes denser and granular, and appears to be filled with delicate fibrils, which possibly may be regarded as the filling up of the interspaces of the neuroglia, with amorphous connective tissue, which afterwards splits into fibrils. This process of proliferation in the vessels and the connective tissue extends also into the medullary tissue, to the basal ganglia and to some of the cerebral nerves.

The *Myelitis* is characterised, so far as is yet known, by the simple atrophy of the nerve tubes, with increase of nuclei in the neuroglia, and in the occurrence of compound granular cells.

The rule adopted by *Life Assurance Companies* to forfeit the sum assured in cases of suicide, is objected to by Dr. Flemming, who maintains that some legal protection should be afforded to the friends of those who commit suicide in consequence of insanity. Dr. Ludwig Meyer mentioned the plan adopted by several British companies of making policies indisputable after a certain time, such as a year, had elapsed from the date of insurance to that of death, except in cases of fraudulent intent. He proposed that the association should communicate with the German companies, with a view to obtaining some such modification of their regulations. A committee was appointed with this view.

Professor Griesinger called attention to the practice of giving *medico-legal opinions* in cases of supposed insanity *without personal examination* of the patient, a practice which appears to be very frequent in Germany. After some discussion, the following resolution was adopted—"That psycho-legal opinions should, whenever possible, be given not upon written evidence only, but also upon the results of personal examination."

Dr. Roller brought the subject of *Admission to Asylums* before the association. He was of opinion that such admissions ought generally to be under the control of the legal authorities, but that in urgent cases their concurrence should not be necessary. *Professor Jessen* believed that there ought to be two categories of inmates of Asylums—those who came voluntarily, and those who came on compulsion, and that the interference of the authorities is only necessary in the latter case. The discussion did not lead to any definite result, and the subject was referred to the next meeting for further consideration.

Dr. Köppe exhibited four preparations of a degeneration of the nasal cartilages, completely analogous to the hæmatoma, well known to occur in the ear. This concluded the public business of the meeting.

II. *English Psychological Literature.*

*Concerning Aphasia.** By HENRY MAUDSLEY, M.D. Lond., Physician to the West London Hospital; Lecturer on Insanity at St. Mary's Hospital Medical School.

[*The Lancet*, November 28, December 5.]

In the remarks which I am about to address to you, my aim is not to contribute any new facts to the clinical history and the pathology of the condition known as aphasia, but to weigh the bearing of the facts already recorded, to examine how far these support the theories that

* Read before the Medical Society of London, Nov. 9th, 1868.

have been based upon them, and to set forth as definitely as may be possible the kind of conclusions warranted by the state of our knowledge. It appears to me that inquiry into this obscure subject has arrived at a stage when little or no further profit can accrue from an aimless accumulation of observations, and that what is now needed is a digestion of the material which lies at hand.

Now the condition of aphasia, or the loss of the power of intelligent expression by speech, must needs for a long time be a very difficult study, forasmuch as the consideration of it brings us at once to that unknown region which lies between what we call mind and what we call matter—to that great barrier which man, having himself first set it up, has been occupied generation after generation in adding to, lamenting all the while that he can find no means of passing it. On the one hand, language is in the most intimate relation with the operations of mind, having indeed an essential part in them; on the other hand, it is a mode of physical expression—a muscular act which our senses can observe. Between the thought of the mind and the word which is the sign or utterance of the thought lies that great gulf which no one has yet fathomed or thrown a bridge across. And yet every moment of our lives it is crossed by the ideas travelling outwards for expression, and recrossed by the effects which all muscular acts exert upon the mind. Assuredly there is a direct organic connexion, though we cannot trace it. Our available methods of inquiry are indeed as completely divided as are the subject matters with which they deal: the objective or physiological method of direct observation is concerned with the clinical phenomena of aphasia and the pathological appearances which have been found to accompany it; the subjective or psychological method of introspection is applicable only to the observation of the mental processes, and to the part which words or names have in them. Now it seems to me that conclusions respecting aphasia have been drawn almost entirely from pathological observation, without regard to the important bearing which language in its physiological and intellectual aspect has on the question to be resolved. Had the subjective method been properly used, and the psychological relations of language duly considered, it may be questioned whether the theory that a part of the third left frontal convolution was the seat of articulate language would ever have been promulgated so hastily, and, I may add, received so rashly. To my mind, there has been nothing like it in psychology since Descartes located the soul in the pineal gland.

Without further preamble, I propose on this occasion to handle briefly, first, the genesis of the theory; secondly, the character of the evidence by which it is supported—in fact, its worth as tried by the simple principles of the inductive logic; thirdly, the physiology of language, so far as defective knowledge enables us to go; fourthly, the pathology of aphasia under a like limitation; and, lastly, to touch briefly on certain questions of interest relating to the condition of aphasia.

The genesis of the theory.—It is well known that Gall believed the faculty of language to reside in the part of the anterior lobes lying above the orbital plates; and, after him, Bouillaud strongly supported the theory of its location in the frontal lobes. Subsequently, M. Dax, of Montpellier, placed the lesion which abolished speech exclusively in the left brain; basing his opinion on 140 observations of cases of aphasic hemiplegia in which the hemiplegia was always on the right side. His son went still further, and limited the seat of the faculty of speech to that portion of the left hemisphere which borders the fissure of Sylvius. It is plain that theories concerning the location of language in the frontal lobe, and in the left side of the brain, were floating in the air. What was likely to happen? That some one in whose mind these theories were fermenting should make an observation or two for the purpose of testing them; and, having found a particular morbid lesion accordant with them, should incontinently jump to the conclusion, not only that the theories were well founded, but that he had discovered the exact seat of the language-faculty. This was exactly what happened. M. Broca, of Paris, examined the brains of two patients who had suffered from aphasia; found, in the one, destruction of the posterior half of the second and third left frontal convolutions, and in the other, destruction of the posterior third of the same convolutions; and concluded, after taking into consideration the symptoms during life, that the posterior part of the left frontal convolution was the seat of articulate language. Certainly a venturesome conclusion to found on two instances, even if the evidence in them had been of a precise and positive character! But it was far from being decisive. In one of the cases there were, besides the particular lesion selected as the basis of the theory, the following morbid conditions:—Thickening of the cranium and of the dura mater; infiltration everywhere of the pia mater with yellowish plastic matter of the colour of pus; softening of the greater part of the left frontal lobe; a cavity of the size of a hen's egg, filled with serum, and caused by the destruction of the inferior marginal convolution of the temporo-sphenoidal lobe, the convolutions of the island of Reil, and the subjacent part or extra-ventricular nucleus of the corpus striatum; while the weight of the encephalon, after the fluid had drained from it, was 14 oz. less than the average weight of the brain in men of fifty years of age. In the other case, although no other morbid lesions were said to be discoverable than an apoplectic cavity in the posterior third of the second and third left frontal convolutions, and a considerable quantity of serum in the arachnoid cavity, the brain with its membranes weighed only 40 oz., or 9 oz. below the average weight of the brain in adult males. It appears to me that these atrophied brains—the brains of persons who died inmates of a lunatic asylum—afford very indifferent support to the theory which was extracted from them; indeed, it is not easy to see why M. Broca might not, with equal justice, have maintained that a faculty of sanity was located in the third left frontal convolution.

Thus much concerning the genesis of Broca's theory. I need not now enumerate the names of those who have given it their entire or partial adherence; the immediate question being, not as to the number of the witnesses, but as to the nature and value of the evidence which they give. Let us, then, address ourselves briefly to this question.

The nature of the evidence adduced.—The theory may be characterised, in a few words, as founded on a crude induction *per enumerationem simplicem*, without due regard to contradictory instances. It is an example of the commonest kind of fallacy in inductive inquiry—the unwarrantable conversion of the lowest sort of generalisation into a causal law. Causation has been confidently inferred from what, so far as evidence goes, may be mere causal conjunction. Consider what the evidence is :—

1st. We have numerous observations recorded proving the more frequent coincidence of impairment of speech with hemiplegia of the right than of the left side—i. e., with injury of the *left* brain. In respect of this point we may note an agreement of observations. We must note at the same time, however, that the coincidence is very far from being invariable.

2nd. We have many observations recorded in especial corroboration of Broca's theory respecting the coincidence of impairment of speech with damage to the third left frontal convolution. In respect of some of these observations, we cannot fail to note an almost too exact agreement. The morbid anatomy of the brain is notoriously a subject requiring very skilled observation, and difficult even to the best trained observer; and when we get a photographic likeness of testimony from observers who have had no special training, and who knew what they were looking for, it is hard to withstand a suspicion of some bias. Not that we need suppose this to be conscious, if it existed; for the great difficulty in observation is, not to see what is looked for, but to avoid seeing it. Inference mingles unavoidably in observation; indeed, half or more than half of what is commonly called observation is inference. Happy, therefore, is the observer who enters on his investigations with a sound theory in his mind.

3rd. A few cases have been recorded in which lesion of the third *right* frontal convolution was *not* accompanied by any aphasia. These may be claimed by the advocates of Broca's theory as affording negative evidence in its favour. Let it be noted, however, at the same time, that they do so only on the assumption of a better foundation for the theory which is in dispute than actually exists; if anyone chooses to maintain that neither the third left nor the third right frontal convolution has anything especial to do with the faculty of speech, he may quote these cases as *positive* evidence in favour of his opinion. Moreover, we must not overlook the fact that several cases of aphasia have been recorded in which the morbid lesion was in some part of the *right* brain, the left being to all appearance quite sound.

Still more cases have been related of aphasia with *left* hemiplegia, where no opportunity of examining the brain after death was afforded.

4th. Proceeding with our review of observations, we find that not a few have been reported in which, although there had been aphasia, there was no lesion whatever of the third *left* frontal convolution. It may, of course, be said that there was a lesion, and that it was not detected. If we allow, as we may justly do, some weight to this plea, we must not forget that it might be put forward with the same force by anyone who chose to maintain that speech was located in the third *right* frontal convolution.

5th. Some cases have been recorded in which the whole of the left anterior lobe was destroyed by disease, and yet there was no aphasia; and there is, at any rate, one case on record in which there was destruction of the posterior part of the third left frontal convolution without aphasia. Such instances would conclusively negative Broca's theory, unless they can be got rid of by being pronounced untrustworthy, or by the violent supposition that they were exceptional cases in which, by some freak of Nature, the faculty of speech chanced to be in the right brain. See how many hypotheses are necessary in order to prop up a bad generalisation. A good structure does not need to be thus shored up on every side, nor stands only by reason of external support.

Lastly, I may mention incidentally, that in 44 cases of impairment of speech out of 332 cases of cerebral tumour, collected by Dr. Ladame, the tumours were more often in the middle than in the anterior lobes, in the proportion of 5 to 4. Tumours in the corpus striatum and pons Varolii were more frequently attended by loss of speech than tumours occurring in any other part of the encephalon. There is no comfort for the advocates of Broca's theory in these observations.

What, then, does this review of the evidence come to? Surely it affords a complete justification of the terms in which I characterised the theory. The one fact which does stand out as supported by some positive evidence, and which has given some show of reason to Broca's fanciful theory, is the frequent coincidence of aphasia with right hemiplegia. If pathological observers had been content to use this as a provisional generalisation, to record it as the lowest kind of empirical law, until further researches had made known the causal law determining these concomitant effects, there would have been nothing to object to. But when they went on to locate a faculty of speech in a particular part of a particular convolution on one side of the brain, they rushed on recklessly to an entirely different conclusion—a conclusion unwarranted by the evidence and unphilosophical in conception. They converted the lowest sort of generalisation into a hypothetical law of causation; and we have seen what shifts they have been driven to, what a host of hypotheses they have been forced to invent, in order to

account for contradictory instances and to keep the theory afloat. Thus the pathological evidence offered has been thoroughly vitiated with hypotheses, and entirely fails to satisfy the first requirements of inductive reasoning. Let us now proceed to view it in the light of physiological facts, and see what bearing they have upon it.

The physiology of language.—Time and the occasion will not allow me to do more than direct your attention to certain leading considerations touching this difficult subject. I shall begin by asking whether the advocates of Broca's theory have really considered what they definitely mean by it. For my part, I find it impossible to understand, nor can I satisfy myself that they themselves understand clearly, what they mean by the faculty of speech. It is obvious that they do not intend to denote thereby the muscular acts into which states of consciousness are translated: they would hardly locate the muscular act in the posterior part of any convolution. They cannot surely mean the feelings and ideas of the mind which are translated outwards in speech: they would hardly "crib, cabin, and confine" all the ideas and feelings in the fragment of a convolution. What, then, is that faculty of speech which they locate there? Having the ideas and the ideational centres which minister to them, and the muscular acts and the motor centres from which they proceed, what other special faculty and nervous centre are required for the phenomena of speech? Broca and his followers seem to have deceived themselves by the creation of a wonderful metaphysical entity distinct from the phenomena, which they call a *speech faculty*, and locate in a portion of the third left frontal convolution. Every idea of the mind is then supposed to be obliged to travel there from the most distant convolutions of both hemispheres, from the north and the south and the east and the west of the brain, to get itself spoken—translated into a muscular act of speech. In no other way can it get outward articulate expression. But if this be so, it will be necessary to suppose that nerve-fibres from all the ideational centres of all the convolutions converge to this particular convolution. We know that communicating fibres, the radiating fibres of the cerebrum, do converge from all parts of the convolutions to the motor centres below; but of any similar fibres converging to a particular convolution we have not the shadow of any evidence.

Now the truth is that there is no more a special faculty of speech in the mind than there is a special faculty of dancing, or of writing, or of gesticulating. All the voluntary movements of the body may be called the outward expressions of ideas. The movements of the tongue have not a special kind of connexion with the mental processes, though their connexion is a very intimate one. If a person be dumb, he must use the muscles of some other part of the body to express his ideas, and he may use the muscles of any part that is capable of a variety of motions; these then become his language. A man may learn to write with his toes, but they are not so convenient as the

fingers for such purpose, and therefore it is not worth while learning to do so. So with regard to speech: the tongue is the most convenient organ, because it is capable of such a great variety, delicacy, and complexity of movement, and because its movements, in conjunction with those of the lips, modify sound, and thus make audible language. But because its muscular acts receive, on this account, a special name—are called speech—they are not special in kind, and have not a more special faculty in the mind than any other definite co-ordinate movement has. Where would the advocates of Broca's theory suppose that the faculty of non-articulate language of an intelligent deaf and dumb person was located? To what particular convolution would they assume that the ideas must travel in order to get themselves expressed in gesture language? Would they locate all the bodily movements in the convolutions?

But it may be that those who uphold Broca's theory would argue that their favourite convolution is the seat, not of the ideas nor of the muscular acts of speech, but of the words in which ideas are clothed for expression. Have they, then, reflected seriously on what words are? A word is nothing more than the artificial mark of the muscular act of speech into which the idea is translated, and a name nothing more than a particular word appropriated to mark a certain idea, so that when heard or seen it may excite the same idea in our minds or a similar idea in other minds. The name or word has no independent vitality; it is merely a conventional sign or symbol differing in different languages; nor is it an indispensable instrument of thought. As the example of Laura Bridgman, who was deaf, dumb, and blind, proves, it is possible to think without words as well as to express thoughts without words. The two essential factors in intelligent speech are the idea and the motor act: the former having its seat in the grey matter of the convolutions; the latter proceeding from the nerve-centres of the motor nerves which go to the tongue and other muscles concerned in speech. The subordination of motor to ideational nerve-centre here is in conformity with the subordination of all other motor centres to the supreme ideational centres; and the muscular acts of speech proceed from their appropriate motor centres just as the muscular acts of a limb which is accomplishing some intelligent purpose proceed from its appropriate motor centres. To say that it is in names we think, and to make of the name an influential factor intervening between the idea and the muscular act of speech, is to mistake names for things; it is to substitute the barren and conventional sign which marks the idea either for the idea itself or for the means of its physical expression, which, as we shall see, do intervene actively in the mental life.

The question of the relation between speech and thought is really only a part of a much larger subject—I mean the intimate and essential intervention of all movements, but especially the movements acquired by education, in our mental life. We do not learn to speak

only, but learn to make other designed movements; and as the movements of speech in which we learn to express ourselves afterwards play an important part in the mental processes, so do all other co-ordinate movements which we have been taught to execute. Once acquired, they are thenceforth constituents of the mind. The education of our movements is as necessary a condition of mental development as is the acquirement of ideas. Consider now what this fact physiologically means. It means that the motor centres of the body are educated by practice, until the powers or faculties of definite movements are in some mysterious way organised in them, so that the movements may easily be excited by the will, or may be automatically accomplished, sometimes without will and without consciousness; these exist, as it were, potential or abstract in their appropriate motor centres, not otherwise than as ideas do in their centres. Hence it is that when the hemispheres of the brain are removed in animals, co-ordinate movements may still be executed; and in man, when the functions of the hemispheres are in abeyance, as in the attacks of epilepsy known as the *petit mal*, similar movements go on. Nay, even movements of speech occur in certain cases of apoplexy, where there is reason to believe the functions of the hemispheres to be suspended. We must bear in mind that a connexion is organised between sensation and movement, as well as between idea and movement; so that the latter may be what is called sensori-motor. Hence it is that, on seeing or hearing a word, we may utter it without a thought of its meaning, and we may even read aloud without thought of what we are reading about, the attention being otherwise engaged. Herein we may perhaps perceive the explanation of the fact that certain aphasic patients, though unable to construct a sentence to express their own ideas, are capable of uttering the word when it is suggested to them, or even of reading a sentence with distinctness of articulation. What we have clearly to realise now, however, is, that the faculty or power of co-ordinate movement exists in the proper motor centre, and may be excited by the idea descending from the cerebral hemispheres above, or by the impulse from a sensory ganglion. The stimulus strikes, as it were, upon the motor centre, and releases the movement which is latent in it, which has been organised there by education; that movement, in the case of speech, being what the word denotes.

But there is another most important consideration, which has been almost entirely neglected, but which is of the greatest moment—namely, the influence which the motor centres, when functionally excited, have, not only on the nerves which go from them to the muscles, but on the higher cerebral centres with which they are connected by intercommunicating fibres. The faculties which have been organised in them by education may act, and probably always do act, upwards as well as downwards, and indeed may act upwards without acting downwards. So acting on the supreme cerebral centres, and thus declaring themselves in consciousness, they become what have been called *motor intuitions*—

recollections of movement-associations,—furnishing us with the conception of the design of a movement before it is made; that is, in the case of speech, with the word before it is uttered. Without such motor intuition the movement could not be consciously made, or the word consciously uttered; we must have in the mind a conception of the design of the act before we can act voluntarily—in the case of speech, must remember the word before we can speak it. I am anxious to lay the greatest stress on this essential action of the motor centres upon the higher centres of thought, and to enforce the strict analogy in this regard between speech and other movements. As I have already said, it is possible to think without names, but it does not thence follow that it is possible to think without any means of physical expression. On the contrary, the evidence is all the other way; for Laura Bridgman's fingers worked, making the initial movements for letters of the finger alphabet, not only during her waking thoughts, but in her dreams. These movements were her speech, and the motor intuitions of the centres presiding over them were the names in which she thought. It is therefore misleading to say we think by names. We think by the ideas which names call up in the mind, and by the motor intuitions through which the ideas get definite expression in appropriate movement. And these motor intuitions may be either intuitions of speech or of some kind of gesture-language.

But it will be said, we are capable of thinking, and we do think, of a word before, or without, uttering it in speech. Certainly; only we ought to be careful not to mistake the conventional sign for the thing signified. What we really have, as the essential factor, in the mind is, not the word, but the motor intuition denoted by the word; just as we have in the mind the conception of any other voluntary movement before making it. There is, in fact, a modified activity of the motor centre in relation to the thought, sufficient to suggest the word, but not sufficient to issue in outward expression. It is well known that some persons of a dull and feeble understanding are obliged sometimes to call the actual movements of speech to their aid, in order to get a distinct conception; it does not suffice them to rehearse mentally the words, but they must repeat them aloud; that subdued activity of the motor centres, that internal representation of the words, which is sufficient for persons of ordinary understanding, not being sufficient for their sluggish minds. In persons again who have the habit of talking to themselves, the excitation of the motor centres during thinking passes similarly into actual movements, the internal repetition of the word becoming external utterance; and if anyone will carefully observe himself when engaged earnestly in some train of thought which he is labouring to work out methodically, he will perceive that there is a mental rehearsal of the words which may reach to an actual whispering of them—a perceptible internal twittering of the movement, which may become outward articulation. It is plain, then, that the motor intuitions, not of speech only but of other move-

ments, constantly and essentially intervene, more or less consciously, in our mental processes,—that there is a constant interaction between the motor and the ideational centres in cerebation.* In the case of speech we mark each movement by a conventional sign or word, so that the sign comes to stand in our minds for the thing denoted by it.

But it is time to bring to an end this exposition of the relations of language to other movements and to thought. What I have said furnishes merely a general sketch of a subject, the investigation of which, hitherto most grievously neglected, promises fruitful results. From the standpoint at which we have arrived it would evidently be vain and futile to discuss Broca's theory, for it would be impossible to admit the existence of a speech-faculty in the convolutions without supposing they were the seat of motor centres, and thus abandoning all that we know definitely concerning the functions of different parts of the brain. I need not here venture on any hypothesis as to what are the motor centres of speech—whether they are in the the corpora striata, or corpora olivaria, or somewhere else. I assert only a conviction that they, like all other motor centres, are subordinate to the supreme hemispherical ganglia. Broca's theory is inadmissible *a priori*, as well as inconclusive *a posteriori*; it is entirely at variance with the knowledge which we have of the physiology of language, and it is really not supported by the pathological evidence on which it has been based.

The pathology of aphasia.—If what has been said be in the main true, the physiological order of events in the expression of thought is something of this kind:—The ideation which takes place in the cells of the cerebral convolutions passes thence downwards along the radiating fibres to the motor centres of speech, and excites in them the associated motor intuition which has been organised there by education. This done, we have in the mind the word appropriate to the thought, the name with which the idea has been associated. Next, by the action of the requisite volitional impulse, the particular excitation of the motor centre passes along the motor nerves, and puts into action the requisite muscles for the articulation of the word. Thus the thought is uttered or expressed in its appropriate language. In order, however, that the muscles which subserve articulation may act as required, the integrity of another factor is essential—namely, the muscular sense, whereby we are made sensible of the condition of the acting muscle. We may have in our minds the conception of a particular movement, and the will to exert it, but we

* The flow of thoughts in a practised writer is as much aided by the words which he writes as is the flow of thought in a practised orator by the words which he utters. Herein we perceive a reason why skill in writing is rather unfavourable than otherwise to skill in speaking; a habit of association of ideas with different movements having been formed. Obviously there would not be any such difficulty, if the essential factor in thought were the word, and not that which it is a mark to signify.

cannot do so without a guiding muscular sense to enable us to know the condition of the instruments which we are using, and the force which we are applying. When, as sometimes happens, the muscular sense in one arm is paralysed, the patient cannot tell whether he is using the limb or not, unless he look at it; if he is holding something in his hand, and looks away, he drops it. The sense of sight in this case takes the place of the lost muscular sense, and, therefore, when he turns his eye away from the limb he loses all sense of its condition. So with regard to the articulation of words: if the requisite muscular sense fails, the person will not be able to utter the word, though he has it clearly in his mind, and though muscular power remains, unless some other sense supply the place of the lost muscular sense. Now, is it not probable that this is the condition of some aphasic patients who cannot for the life of them spontaneously articulate a word which they have in their minds, but who can do so when any one else suggests it—that is, when the sense of hearing takes the place of the lost muscular sense?

There are other ways in which the phenomena of aphasia may be conceived to be produced. It is conceivable that there might be lesion of the ideational centres of the convolutions, so that the person cannot rightly co-ordinate his ideas, or cannot call up the idea which he wants, and therefore not the name, all the while, perhaps, fancying erroneously that he has got the idea, and that it is only the name which he wants. I doubt not that some cases of so-called aphasia are examples of this sort—really cases of mental defect. Or there may be some damage to the intercommunicating fibres between the ideational and its associated motor centre, so that the proper name of the idea cannot be recalled, and the patient is obliged to go a round-about way to express his idea, or cannot express it all, or expresses it wrongly. Perhaps he may still understand the word, and even be able to utter it as a sensori-motor act, when he hears it spoken or sees it written. Or, lastly, the injury may be supposed to affect, in greater or less degree, the motor centres of speech themselves, so that the motor intuitions are destroyed, and the individual loses all memory of words, and how to say them.

It is easy, then, to conceive different pathological conditions to account for the phenomena of aphasia more probable physiologically than Broca's hypothesis, and more in conformity with the morbid lesions actually found in aphasia. For the facts really point, not to lesion of the third left frontal convolution as the essential element, but to lesion of some part of the corpus striatum, or of some motor nuclei or intercommunicating fibres in its neighbourhood—to lesion anyhow of some part of the motor centres, or of their communications with the supreme centres. We should bear in mind that if the actual motor centres of speech be not implicated in the destruction of tissue, they may still be paralysed by the inhibitory influence of a severe damage in their near neighbourhood.

A question of much interest in relation to aphasia, and which I shall notice briefly, is as to the cause of its frequent association with right, and its rare association with left, hemiplegia. An ingenious explanation has been offered by Dr. Moxon, which is that the left brain is educated for speech as it is for writing. As a person writes only with his right hand, it is evident that the motor centres in the left brain have been educated for the purpose, and that the corresponding motor centres in the right brain have not been similarly educated. Dr. Moxon's theory is that the education of speech is likewise limited to the left brain, whence it happens that disease or injury in it produces aphasia. An obvious objection to this supposition is, that while there are two hands which act quite independently of each other, there are not two tongues, but one tongue, the symmetrical halves of which constantly act together in all save one or two of its simplest movements—certainly in all the important movements of articulation. Now there is good reason to believe, as Dr. Broadbent has pointed out, that when the corresponding muscles on opposite sides of the body constantly act in concert, the nerve-nuclei of those muscles have such a close commissural connexion as to act like a single nucleus. What justification, then, have we for refusing the same power to one nucleus which we assign to the other over the bilaterally symmetrical action of the instruments of speech? Dr. Moxon seems to forget that the education of the motor nuclei of one side must be the education of those of the other side, if they always acted simultaneously. There is, moreover, no warrant for the assumption, postulated by the theory of a one-sided speech faculty, that a motor nucleus on one side can, independently of its fellow, govern movements on both sides of the body.

Again, if the argument from the supposed analogy of writing—which, however, fails in the essentials of a true analogy—be pressed, we may rightly claim to push it further, and to ask how it is that an aphasic person, whose intelligence is preserved, does not learn to speak with the right brain, as a person suffering from right hemiplegia may learn to write with his left hand. How is it he does not succeed in educating the right side of the brain to the instigation of simple articulation, more especially when he is able, as he sometimes is, to express his thoughts in writing? There is not any inaptitude of the muscles to prevent him; on the contrary, these may be supposed ready, by virtue of previous habit, to fall at once into the requisite movements on receiving the slightest intelligent impulse.

To me it appears that the action of the two halves of the brain in relation to speech should be compared to the action of the two eyes in vision. A person may see clearly with one eye, or with the other, or as he usually does, the sensations being simultaneous, with both eyes; and so in like manner he may think and translate his thoughts into speech with one half of the brain, or with the other, or as he usually does, their action being simultaneous, with both halves. If now it be asked how it happens that a particular lesion on one side of the brain

destroys the power of speech, the reply is, that the motor nuclei of the two sides are so closely connected commissurally and functionally that damage to one implicates the other, either directly or by inhibitory action. If a person loses one eye he can certainly see with the other, though the latter is very liable to suffer sympathetically after a time; but if the optic ganglion of one eye were destroyed the function of the other ganglion would probably be abolished in most cases.

Still the difficulty remains as to the cause of the frequent association of loss of speech with right hemiplegia. Is it not possible that the usual limitation of the power of writing to the left side of the brain may after all have something to do with it? The motor centres of speech and the motor centres of writing are evidently in close functional connexion; when a person is writing down the results of reflection, he rehearses mentally or actually whispers the words in which he is going to express himself; so that there is a constant interplay between the motor intuitions of speech and those of writing. Now if these different motor centres sympathise so intimately in healthy action, it is presumable that they will sympathise in disease; wherefore an injury to the motor nuclei of writing may, though not directly implicating the motor nuclei of speech, still abolish the function of the latter by sympathetic or inhibitory action. But whether this be so or not, it is possible to suppose some anatomical differences, either in the brain structure or in the disposition of the bloodvessels, which might account for the frequent coincidence of aphasia with right hemiplegia, without the necessity of supposing a location of the faculty of speech in one side of the brain. There must be some such difference to account for right hemiplegia being more common than left hemiplegia.

A few last words touching the state of the intelligence in aphasia. So far as we are able to interpret phenomena, it appears that the intelligence is preserved in a few cases, more or less impaired in the majority of cases, and sometimes entirely abolished. No hard and fast line applicable to every case can be drawn. Just as there may be every kind and degree of impairment of speech, so there may be every kind and degree of impairment of intelligence. There are, however, certain general considerations which may profitably be borne in mind when the question of the state of the intelligence presents itself for determination. If what has been said of the physiology of language be correct, and the motor intuitions of speech play the important part in thought which has been assigned to them, it is hard to conceive the abolition of them without serious impairment of intelligence. Though a patient may manifest an intelligent appreciation of simple questions, he may still be incapable of anything like sustained thought. This is a fact which it is not superfluous to note; for some inquirers, having found by simple trials that there was not sheer imbecility in a particular case of aphasia, have hastily concluded that there was no mental impairment. It is not always safe to accept the patient's

opinion of his entire capacity, if he should so far recover as to be able to give it; for when he is cut off from his relations with the external world by the abolition of the channel by which he has intelligent communication with it, he is to some extent in the position of a person who is dreaming. And as one who dreams sometimes fancies that he is reasoning most logically, and speaking most clearly and even eloquently, when he is all the while talking nonsense, so an aphasic person may imagine his mental operations to be perfect when they are really very defective. The proof that this is so in some instances is his inability to learn to express himself by some language of signs, which would not be a difficult acquisition if the intelligence were unimpaired. When, however, he cannot learn to do this, it is reasonable to conclude either that he has no ideas to express, or, at any rate, that he has not sufficient intelligence to learn a language which it is not difficult for any person of common intelligence to acquire.

PART IV.—PSYCHOLOGICAL NEWS.

Proceedings at the First Quarterly Meeting of the Medico-Psychological Association, held at the Royal Medico-Chirurgical Society (by permission of the President and Council), on Thursday, October 29th, 1868, W. H. O. SANKEY, M.D., Lond., F.R.C.P., President, in the Chair.

The first quarterly meeting of the Association was held on the 29th October, in the rooms of the Royal Medico-Chirurgical Society, Dr. Sankey, President, in the chair. There was a good attendance, some of the members coming from a considerable distance.

The following members of the Association were present:—Dr. Sankey (*President*), Dr. Harrington Tuke, Dr. Boyd, Dr. E. T. Hall, Dr. W. Rhys Williams, Dr. H. L. Kempthorne, Dr. H. Maudsley, D. De B. Hovell, Esq., Dr. G. Fielding Blandford, Dr. J. F. Sabben, W. B. Kesteven, Esq., Dr. Ellis, Dr. H. Stilwell, Dr. J. H. Paul, Arthur Harrison, Esq., Heurtley Sankey, Esq., E. S. Haviland, Esq., Dr. Jepson, Dr. T. B. Belgrave, E. Hart Vinen, Esq., Dr. Lockhart Robertson, Dr. Joseph Seaton; and the following visitors:—S. Solly, Esq., J. Lockhart Clarke, Esq., Dr. G. R. Irvine, Dr. Frederick Thompson, Dr. E. Ayres Thompson, T. W. Nunn, Esq.

After a short address from the President, the Honorary Secretary (Dr. Tuke) read a paper "On the History and Purpose of the Association," in which he showed its origin to have been contemporaneous with the rise of the "non-restraint system," of which its early founders

—among them Mr. Gaskell, Dr. Browne. and Dr. Thurnam—were strong supporters; that to Dr. Conolly, and principally to Dr. Bucknill (who for ten years edited its journal), the Association owed its prosperity; and that the purpose of the Society should be to keep ever before them, whether in scientific examinations or in practical work, those principles of kindness and gentleness towards the insane, for the investigation and spread of which their Association was founded, and for the advancement of which their leading members had so persistently laboured.

The President, Dr. Sankey, read a paper on the "State of the Arteries and Capillaries of the Brain in Mental Disease." The object of the paper was to inquire into the condition of the small arteries in insanity. The result lately arrived at by Dr. G. Johnson, the author considered, rendered such an inquiry particularly interesting. There are certain well-known phenomena in mental disease which show a considerable regularity of periodical change. It is obvious, therefore, that the pathology of such phenomena should be sought for in a function attended with periodicity in activity. The elements involved in all mental phenomena are the cerebral organ on the one hand, and the blood on the other. It is obvious that, of these two, the condition of the one is a fixed state, and that of the other an ever-changing one. Phenomena which, therefore, are constantly changing, are more likely to be due to the changing element than the fixed. It is also known that the cerebral circulation varies, as to its degree of fullness, with more or less periodicity of action. It does so normally in sleep, and abnormally in the condition of the hot and cold stages of ague, &c. It is believed that this fulness or emptiness of the small arteries is affected through their muscular coat, and that this coat is affected through the agency of the sympathetic nerves. The action of these vessels is also known to be affected directly through the cerebrum, as when a mental emotion causes pallor or blushing. If any of the phenomena of insanity are due to an alteration produced in the cerebral circulation, either from mental or cerebral excitement, or from an impure state of the blood itself acting upon the capillary system, as Dr. Johnson explains it to do in kidney disease, it is probable that traces of this action would be left behind in a permanent change of the blood vessels themselves; and thus a thorough examination of the state of the cerebral arteries becomes an object of particular interest. The author has re-examined with care 68 specimens taken from 27 subjects—8 from patients dying of general paresis, 7 from cases of dementia, 7 from chronic insanity, 2 from epileptics, 1 from a subject with acute mania, and 2 from cases of other kinds—not insanity—with the following results:—There was very slight thickening of the small arterial walls in one only of the cases of general paresis, but all the capillaries of those subjects were more or less varicose. In the cases of dementia the small arteries were more or less thickened in all; in one the thickening was well marked. In the subject of chronic insanity the

state of the small arteries varied, but marked increase in the arterial wall was observable in four. In the acute cases no changes was found. The author remarked that the frequency with which arterial hypertrophy was found in the old cases was interesting, as pointing to a prior stage in which, probably, the contractile functions of the artery had been frequently called into action; while the absence of it in the cases of general paresis, but the presence of varicosity, which was so frequently observed, indicated that the nervous power exerted on the arteries was involved in the general paralytic condition. And this agrees with all the other phenomena of the disease, for at the latter stages of it the purely reflex action was visibly impaired. (*Dr. Sankey's paper will be found in full in Part I., Original Articles, of this number*).

Dr. LOCKHART ROBERTSON said he had listened with much interest to Dr. Sankey's paper. Nothing was more unsatisfactory than, in their post-mortem examinations of the insane, to be so frequently unable to discover any traces of disease. Since the researches of Sir Charles Hood, at Bethlehem Hospital, into the state of the blood in mental diseases, and Dr. Sutherland's examination of the urine, at St. Luke's, no new process had been instituted. He hoped that Dr. Sankey, in the paper now before the association, had struck out a new path for investigation.

Mr. SOLLY expressed his concurrence with Dr. Robertson's opinion as to the value of the paper. He found in it a corroboration of many of the views of Dr. George Johnson and others as to the possibility and probability of alteration of the capillary circulation producing rigors, convulsion, and epilepsy. He was himself convinced that the views of Dr. Arnott were correct as to the structural use of the muscular coat of the artery, which was, by its contraction, to convert the arterial tube, which, in a flaccid condition, was like a leathern tube, into a leaden one, meeting each contraction of the left ventricle. By this action, the motive power of the heart was economised. The contractile power of the artery was perverted in disease. The long-continued effect of this perversion produced that hypertrophy which Dr. George Johnson had so perfectly demonstrated to exist in Bright's and other diseases. An interesting observation in the paper was, that the change in the arterial circulation was frequently marked by periodicity; functional disturbance of the arterial coat would thus account for the sudden advent and the entire disappearance of morbid symptoms in some cases, without any morbid lesion after death. His own experience in dissecting at Hanwell and elsewhere led him to the conclusion that atrophy was the principal morbid appearance to be discovered; but the work of Mr. Lockhart Clarke had given a new impetus to investigation, and we need not despair of being yet able to trace the pathological condition of the brain and spinal cord in even epilepsy, as he had done in tetanus; though Dr. Wilkinson King used to say the nervous system always presented a perfectly healthy appearance after death from tetanus. In conclusion, he would add, that in

all examinations of the brain the state of the hemispherical ganglia should be considered carefully. He was surprised to find that by several writers their importance had been overlooked. Mr. Solly, speaking in the name of the Council of the Medico-Chirurgical Society, was glad to see the association meeting in their rooms, and he trusted that he might have an opportunity of assisting in their work, the highest one, that of the advancement of the means of alleviating the disorders common to humanity.

After some remarks from Dr. Sankey, and the reading of a letter from M. Brierre de Boismont, which was referred to the Committee on the Law affecting the Insane, the first quarterly meeting of the Association closed with every prospect of successful future gatherings.

Deputation of the Scotch Branch of the Medico-Psychological Association to the Lord Advocate.

A deputation of the members of the Scotch branch of the Medico-Psychological Association was received by the Lord Advocate in his chambers on the 30th October. Their object was to represent to the Government the great importance of a thoroughly scientific inquiry into the best means of preventing the increase of lunatics and of incorrigible imbeciles, and of protecting families and society. Amongst those present were—Dr. Laycock, Professor of the Practice of Medicine, and President-elect of the Association; the Medical Commissioners in Lunacy for Scotland, Sir James Coxe and Dr. Browne; Dr. Maclagan, Professor of Medical Jurisprudence; Dr. Balfour, Dean of the Medical Faculty; Mr. Bruce Thompson, Surgeon to the general prison for Scotland, Perth; Dr. Skae, Medical Superintendent of the Royal Edinburgh Asylum; Dr. Sibbald, of the Argyllshire District Asylum; Dr. Gilchrist, of the Southern Counties Asylum; Dr. Alexander Wood, Member of the General Medical Council for the College of Physicians; Dr. Rorie, &c., &c.

Professor LAYCOCK, in explaining the object of the deputation to his Lordship, referred to the great advance which had been made in medical science, more particularly in that branch which took special cognizance of mental disorders. But while the sciences had been rapidly developing, the administration of justice in relation to mentally defective criminals was founded upon doctrines current in what, comparatively speaking, might be called the dark ages (hear, hear). The doctrines upon which our forms of procedure were founded had become practically obsolete, and in this way the practice had become out of relation to the administration of the law. Now, it was well-known that there was a very intimate connection between imbecility and vice in the way of cause and effect, and there could be no doubt that many committed to prison for crime were more or less imbecile, so far as not to be under self control. The state of the law as regards persons of

incurably vicious propensities was very defective. It was extremely difficult, as the law now stood, for medical men to give evidence before a court in such a way as to satisfy their judgment as professional men, and their consciences as citizens. No doubt there were great differences of opinion, as there must be among so large a body of gentlemen, upon this subject, but it was not the object of the deputation to press upon Government the necessity of inquiring into what constituted insanity. They were desirous of impressing upon his Lordship, and Government through him, the necessity for a full inquiry being made into the relations between mental science and the administration of law. He trusted, therefore, that his lordship would press upon the Government the necessity of appointing a commission of inquiry.

MR. BRUCE THOMSON, surgeon to the General Prison of Scotland, in the course of his remarks, referred to the intimate connection between insanity and crime. Founding his remarks on what came under his own personal observation, he had no hesitation in saying that one prisoner out of every nine was more or less insane, and that one out of every 140 became irresponsibly so. He referred more particularly to one class of prisoners of this kind—namely, the epileptic. He believed that many crimes were committed by epileptic criminals when they were utterly unconscious and in an irresponsible state of mind; and he mentioned cases which had come under his own observation, and which fully bore out his remarks. He thought prisoners of that class should be treated very differently than they are under the present system of prison discipline, and such a subject should be carefully considered by any commission which may be appointed. He next referred to the close connection between over-indulgence in intoxicating drinks and crime, and expressed a strong opinion that for their own sakes and the safety of society, it was absolutely necessary that men and women of this class ought to be taken care of.

Professor MACLAGAN remarked that a good deal had been said about the unreliable nature of medical evidence, but if the facts were examined, it would be seen that the difficulty did not arise so much from the purely scientific or practical portions of the medical man's evidence, but more commonly referred to causes involving mental disorder. Their object in appearing before his Lordship was not so much to point out any remedy which might be adopted for the cure of the evils referred to, as to impress upon the Government, through his Lordship, the necessity for appointing a commission to inquire into the whole matter. He next referred to the subject touched upon by Dr. Thomson—namely, the intimate connection between drink and crime, and expressed the opinion that the misery, the crime, and shame which were caused by over-indulgence in intoxicating liquors could not be exaggerated. The treatment and reclamation of dipsomaniacs were, therefore, of the greatest consequence, and would fittingly come under the consideration of such a commission.

Mr. Commissioner BROWNE also referred to the intimate connection

between insanity and crime. There were many important witnesses in support of this fact. Dr. Thomson had told them his views on the matter, and his predecessor, Dr. Malcolm, had held the same opinion. Dr. Malcolm was a plain, practical man, not given much to subtle disquisition, and he had left behind him a memorandum to the effect that of the hundreds and thousands of persons who had passed under his observation, upwards of two-thirds of them were either insane or in some degree affected. He (Mr. Browne) had also observed that crime was hereditary; the members of certain families being distinguished for insanity and crime for three or four generations, and the laws of hereditary tendency as bearing upon the responsibility of the individual might be profitably considered by a Parliamentary commission.

Dr. SKAE concurred in all that had been said; and, in his remarks, referred more particularly to the necessity of some alteration in the law with reference to medical evidence. The legal enactments which had been in use for so many years were now obsolete, and ought to be reformed in harmony with the development of science and experience.

Dr. ALEXANDER WOOD also heartily concurred in all that had been said, and spoke of a hereditary tendency to drunkenness in particular families, which invariably degenerated into crime.

The LORD ADVOCATE then said—The subject to which the deputation had called his attention was one of very great interest, but attended with considerable difficulty. He had long been impressed with the fact that great weakness of intellect existed among those placed at the bar of our criminal courts, and it was extremely difficult to determine the exact extent to which their imbecility should relieve them from punishment. The views which he had formed as to the weakness of the intellects of criminals during the time he practised at the bar, received striking confirmation from a visit he had recently paid to the General Prison for Scotland, under the management of Mr. Thomson. Certainly any observations which had been made by Dr. Malcolm upon such a subject were entitled to the greatest weight. All knew that he was not so much a speculative man as a man of practical observation, sound sense, well versed in the principles of his profession, and equally well practised in it. Now he (the Lord Advocate) understood that the deputation were desirous that a commission should be appointed to consider certain points connected with mental disease, and also with reference to the position of the medical profession as regards the evidence which they are called upon to give in courts of justice. In respect to mental diseases, the members of the deputation had not pointed out any practical measure for the remedy of existing evils; and he presumed they considered that a matter for the consideration of the commissioners (hear, hear). Now, the deputation could not expect that he would come under any pledge, as it was not a subject peculiar to Scotland, but common to

England and Ireland. He was extremely desirous that public attention should be directed to this question, and with that view he had consented to the presence of a reporter, that the public should have laid before them the views urged by the deputation. It was a very important question, and it was right that the attention of the public should be called, so as to bring out discussion upon the points raised. All he could say in the meantime was that he would take an early opportunity of bringing before the Government the views of the influential deputation he had had the honour of receiving. They would understand that the law with reference to some of those matters was not the same in Scotland as in England, and he believed that an assimilation of the laws, as much as possible, was desirable. More particularly with reference to the rights of persons, he could see no reason why the law should be different in both countries. He did not say that we should adopt the English law. We should adopt the best of both systems, and therefore an inquiry by a commission may in this respect be of great advantage. His Lordship concluded by again assuring the deputation that he would take an early opportunity of bringing the matter under the notice of the Government.

Mr. Commissioner BROWNE assured his Lordship that the society which the deputation had the honour of representing was not a local one, but composed of members from almost all countries.

The deputation having thanked his Lordship for his courtesy, withdrew.

*Lord Shaftesbury's Speeches.**

The volume before us may be said to contain a presentment of the political life of Lord Shaftesbury, in its relation to the reforms for which he has chiefly laboured, and there are few statesmen who can look back upon a life at once so consistent and so successful, upon objects so steadily pursued, upon aims so purely benevolent, upon victories so certainly the preludes of others yet to come. In every philanthropic effort in which Lord Shaftesbury has been engaged, some progress at least has been made, and such progress, by fulfilling the hopes and justifying the predictions of its promoters, has always prepared the way for more. The speeches now reprinted range over a period of nine-and-twenty years, and over a variety of topics; but they mostly reiterate certain cardinal *desiderata*, certain specifics against the well defined causes that add artificially to human sin and misery. At the very beginning of Lord Shaftesbury's public career these points were insisted upon, and in so far as they have not been

* Speeches of the Earl of Shaftesbury, K.G., upon subjects having relation chiefly to the claims and interests of the Labouring Class. With a Preface. Chapman and Hall. 1868.

carried they are insisted upon still. Domiciliary accommodation sufficient for health and decency, the enforcement of proper sanitary laws, the education of children, and the protection of helpless persons, such as children, women, and lunatics, from the greed or the carelessness of those upon whom they may be dependent—these have been the results aimed at, and, in a very considerable degree, attained. Proper and legitimate as they seem, they have not been attained in any degree but by overcoming the strenuous opposition of interested persons, and the scarcely less formidable apathy of persons who were uninterested. In recent years it has been a conspicuous evil of our system of party government that none but party questions have been rendered prominent in Parliament, and a party question must be one on which men of honour and principle can take different sides, under the guidance of essential differences of opinion. When it is proposed to house the poor decently, to make provision for their health and education, and to diminish the temptations that lead them to crime, there can be no differences of opinion about these ends, and no possibility of gaining a Parliamentary reputation by opposing them. There will, however, be room for differences about the wisdom or probable effect of the means proposed, and these differences will be used as pretexts for delay and for inaction. The abuses of our great cities and towns do not want for powerful supporters among persons who thrive, or fancy they thrive by them, and who belong to classes that have hitherto greatly influenced elections, and in other ways have possessed and exerted great political power. Whether in the future their power will wane and their obstructiveness cease to be felt, the future must itself disclose.

The first speeches in the volume refer to the Factory Acts, and, although the abuses against which these Acts were directed have long ceased to exist, yet it is fully worth while to refer to them as matters of history. Lord Shaftesbury's speeches avoid, as a rule, any detailed account of these abuses, and refer his hearers to the published Reports of the various Commissions that had been from time to time appointed. Still we have been able to mark passages sufficient for our purpose, and capable of conveying some conception of the cruelty, the disease, and the vice that attended upon a system now happily passed away. As regards cruelty, we read with reference to pin-making :—

Children go at a very early age, at 5 years old, and work from 6 in the morning till 8 at night. There are as many girls as boys. One witness, a pin-header, aged 12, said, 'I have seen the children much beaten ten times a day, so that with some the blood comes many a time; none of the children where I work can either read or write.' Another witness said, 'It is a sedentary employment, requiring great stress upon the eyes, and a constant motion of the foot, finger, and eyes.' This is fully confirmed in a letter I have just received. There it is stated that eyesight is much affected; the overseers of the poor have sent many cases of this nature to the Eye Institution at Manchester. Each child, reports Mr. Commissioner Tuffnell, is in a position continually bent in the form of the letter C, its head being about eight inches from the table. My inquiries,

he adds, fully corroborated the account of its being the practice of parents to borrow sums of money on the credit of their children's labour and then let them out to pin-heading till it is paid. One woman had let out both her children for ten months, and another had sold hers for a year. Here I must entreat the attention of hon. members to this system of legalised slavery; and I cannot better invite it than by reading an extract from a letter which I have lately received. 'You also know,' says my informant, 'the practice of the masters in securing the services of these little slaves. One man in this town employs from four to five hundred of them. A very ordinary practice is for the master to send for the parents or guardians, offer them an advance of money—an irresistible temptation—and then extract a bond, *which the magistrates enforce*, that the payment of the loan shall be effected through the labour of the child. A child of tender age can rarely earn more than from 9d. to 1s. a week. Thus the master becomes bodily possessor of the children as his *bonâ fide* slaves, and works them according to his pleasure. And now mark this—If he continues with the employment to pay wages and keep the loan hanging over the head of the parents, who do not refuse to take the wages, yet cannot repay the loan, the master may keep possession of the child as his slave for an indefinite time. This is done to a great extent; the relieving officer has tried in vain to break through the iniquitous practice, but it seems that the magistrates have not power to do it.'

Lord Shaftesbury next quotes from Mr. Tuffnell the following statement. "Knowing," says he,—

The cruelties that are sometimes practised in order to keep those infants at work, I was not surprised at being told by a manufacturer that he had left the trade owing to the disgust he felt at this part of the business. . . . From my own observation of the effect of the trade as now carried on I do not hesitate to say that it is the cause of utter ruin, temporal and spiritual, to eight out of every ten children that are employed in it.

The abominations of calico printing are next dealt with, and are thus described, on the authority of Mr. Horner:—

It is by no means uncommon for children to work as *teer* boys as early as six and seven years of age, and sometimes as young as five. Children of six, seven, and eight years old may be seen going to work at—what hour will the House think? at what hour of a winter's night? or at what hour of the night at all? Why, he proceeds, at 12 o'clock of a winter's night, in large numbers, sometimes having to walk a mile or two to the works. When they are twelving the first set goes at 12 o'clock in the day and works till 12 at night. Sometimes they do not send away those who have worked from 12 in the day to 12 at night, but let them sleep a few hours in the works and then set them on again. There is no interval for meals in the night set, except breakfast, the children taking something with them; and even their breakfast is taken at the works. The custom of taking their meals in the works is very injurious, for they do not wash their hands, and they consequently sometimes swallow deleterious colouring matter. A person whose name is not given, states that, being frequently detained in his counting-house late at night till 12 or 1 o'clock, he has often, in going home in the depth of winter, met mothers taking their children to the neighbouring print works, the children crying. All this I can confirm and exceed by the statements of a letter I hold in my hand from a medical gentleman living in the very centre of the print works. I wish there were time to read the whole of it, but I fear I have already fatigued the House by the number of my extracts. 'Many children,' he writes, 'are only six years of age; one-half of them, he believes, are under nine; the labour of children is not only harder but of longer duration. During nightwork the men are obliged to shake their *teerers* to keep them awake,

and they are not seldom roused by blows. This work is very fatiguing to the eyes; their sight consequently fails at a very early age. They have to clean the blocks; this is done at the margin of the brook on which the works stand. I often see these little creatures standing up to the calves of their legs in the water, and this even in the severest weather, after being kept all day in rooms heated to a most oppressive degree. The injurious effect of this close and heated atmosphere is much aggravated by the effluvia of the colours; these are, in most cases, metallic salts, and . . . very noxious. The atmosphere of the room is, consequently, continually loaded with poisonous gases of different kinds.'

The effects of such a system as this upon health and morals can scarcely need to be described; and those whose memories extend back to the time at which such abuses existed will remember that the very name of "factory people" was once expressive of everything calculated to shock the good and to revolt the fastidious. Children dragged up through these scenes of brutality could scarcely fail, if ever they reached maturity, to be themselves sickly, and cruel, and vicious, and degraded. It is unnecessary to quote much evidence upon the point, and we shall be content with extracts that are few, although significant:—

Since 1816 80 surgeons and physicians have asserted the prodigious evil of the system. The Government Commissioners themselves furnish a summary of particulars:—The excessive fatigue, privation of sleep, pain in various parts of the body, and swelling of the feet, experienced by the young workers, coupled with the constant standing, the peculiar attitudes of the body, and the peculiar motion of the limbs required in the labour of the factory, together with the elevated temperature, and the impure atmosphere in which the labour is often carried on, ultimately terminate in the production of serious, permanent, and incurable diseases. When I was myself in the manufacturing districts, in the year 1841, I went over many of the hospitals, and consulted many of the medical men in that part of the country. The result is contained in a note which I drew up at the time, and which is as follows:—Scrofulous cases apparently universal; the wards were filled with scrofulous knees, hips, ankles, &c. The medical gentleman informed me that they were nearly invariably factory cases. He attributed the presence of scrofula to factory employment under all its circumstances of great heat, low diet, bad ventilation, and protracted toil. . . . Hence arise many serious evils to the working classes. None greater than the early prostration of their strength, their premature superannuation, and utter incapacity to sustain their families by the labour of their hands. . . . The ages above 40 are seldom found in this employment.

Upon the question of vice it will be sufficient to show the habits and condition of the women:—

Mr. Braidley, when boroughreeve of Manchester, stated that in one ginshop during eight successive Saturday evenings, from 7 till 10 o'clock, he observed, on an average rate, 412 persons enter by the hour, of whom the females were 60 per cent. . . . Sir Charles Shaw, for some years the Superintendent of the Police at Manchester, says:—'Women by being employed in a factory lose the station ordained them by Providence, and become similar to the female followers of an army, wearing the garb of women but actuated by the worst passions of men. The women are the leaders and excitors of the young men to violence in every riot and outbreak in the manufacturing districts, and the language they indulge in is of a horrid description. While they are themselves demoralized, they contaminate all that comes within their reach.'

If we now turn from this revolting picture, in order to see what is the actual condition of factory people in the present day, we shall find a contrast such as has never before, perhaps, been produced by wise and beneficent legislation. Even in the same county or district the state of the operatives differs widely according to the interest felt by their employers in promoting their physical and moral welfare; but the worst condition which would now be possible in no way approaches that which was the rule five-and-twenty years ago. Of the general improvement no better proof could be given than the exemplary conduct of the cotton hands during the distress produced by the American civil war. If we descend to particulars, we find that "factory diseases" have simply ceased to be, that the health and physical development of the operatives is fully equal to that of any other labouring class, or differs for the worse, if it ever does so, only because the occupation thus carefully fenced and sheltered by the law has become absolutely a source of comfort and of protection to the weak. Children now labour in a manner fitted to their powers, and women are enabled to assist in the maintenance of their families, or to support themselves, without injury either to health or morals, and without being compelled to neglect all the duties of home. With the growth of a generation accustomed to these advantages, there has risen up a more healthy tone of opinion. In places where operatives are clustered in out-of-the-way villages, distant from the mills, and little visited by any but their own class, great moral evils still exist and are likely to continue. When, on the contrary, the masters will exercise supervision over the fitness of their dwellings, when these dwellings are situated on high roads and in frequented places, and when a certain standard of respectability is insisted upon as a condition of continued employment, the operatives of the present time will be found to be worthy and well-conducted people, industrious, temperate, and frugal. Mills in which these conditions exist become more and more frequent, and each one of them serves to elevate the general tone of the operatives in the neighbourhood in which it stands.

A most important part of the factory legislation has been the provision made for the education of children. In this way great good has been accomplished, but still very much less than could be desired. In 1838 Lord Shaftesbury says—

Since 1816 no less than 60 clergymen, either by documents or in person, had exhibited the vicious and awful condition of those districts, and the utter hopelessness of any efforts to impart to people engaged in factory labour anything like moral or religious instruction. In 1835 a petition was presented from 200 Sunday school teachers, declaring that it was quite impossible, even on the Sabbath day, to convey to their minds, wearied and exhausted as they were, any beneficial instruction whatever.

In a speech in the House of Commons in 1843 on the education of the working classes, we find the following statements:—

At Wolverhampton, Mr. Horne says:—‘Among all the children and young persons I examined I found, with very few exceptions, their minds as stunted as their bodies, their moral feelings stagnant. . . . The children and young persons possess but little sense of moral duty towards their parents, and have little affection for them. . . . One child believed that Pontius Pilate and Goliath were apostles ; another, 14 or 15 years of age, did not know how many two and two made. In my evidence, taken in this town alone, as many as five children and young persons had never heard even the name of Jesus Christ. . . . You will find boys who have never heard of such a place as London, and of Willenhall (only three miles distant), who have never heard the name of the Queen, or of such names as Wellington, Nelson, Bonaparte, or King George.’ . . . In the north of England the replies of many of the children who were questioned by the Commissioners show a state of things utterly disgraceful to the character of a Christian country. One of the children replied to a question put to him, ‘I never heard of France ; I never heard of Scotland or Ireland ; I do not know what America is.’ James Taylor, a boy 11 years old, said that he ‘has never heard of Jesus Christ ; has never heard of God, but has heard the men in the pit say “God damn them ;” never heard of London.’ A girl, 18 years old, said, ‘I never heard of Christ at all.’ This, indeed, the Commissioner adds, is very common among children and young persons. She proceeded to say, ‘never go to church or chapel ;’ again, ‘I don’t know who God is.’ The sub-commissioner who visited Halifax has recorded this sentence, ‘You have expressed surprise,’ says an employer, ‘at Thomas Mitchell not having heard of God ; I judge there are very few colliers hereabout that have.’

It is well known to all who are conversant with schools that the answers of children and young persons to strangers are frequently deceptive. A formidable looking Commissioner, armed with a despatch box, invested by the imaginations of the young with awful and irresponsible power, and addressing questions in literary English to an audience accustomed only to a provincial dialect, would almost certainly, even now, be astonished at the abysses of ignorance that he would discover. Such ignorance would be to a great extent apparent rather than real ; and, granting that it might be real in some cases, the facts remain that schools exist, and that the children attend them. Of the children now working in factories, perhaps, not more than five per cent. are unable to read. Probably 90 per cent. can both read and write in some fashion ; a very large proportion can cipher. The actual deficiencies of the schools of the present day are mainly two—want of discipline and want of method.

Besides the questions on which it is now possible to look with some complacency at principles actually established, and upon progress that is itself a guarantee for the future, the speeches before us deal with others that are still in the stage of inquiry preliminary to legislation. Foremost among these is the system of agricultural labour in gangs. Next, not as being secondary in importance, but as being more complicated, and therefore less easy of immediate settlement, are amendments in the Poor Law, in the sanitary laws, and in the laws affecting the dwellings of the industrial classes. Upon each and all of these there is one moral to be drawn from the volume of which we treat. In proportion as the social reforms suggested and advocated by Lord Shaftesbury have been carried into

effect, so has been the improvement in the general condition, not of the labouring classes only, but of the whole community as influenced by them. The improvement has been so great as to be well nigh incredible by a generation in which the horrors of the past are either unknown or forgotten. It is good sometimes to call these horrors to remembrance; and it is justifiable to conclude that wisdom thus tested by experience may be accepted as a safe and certain guide for the social legislation of the future.—*The Times*, October 21.

The Westminster Review on Obscure Diseases of the Brain.

The fourth edition of Dr. Winslow's *Obscure Diseases of the Brain and Mind* proves the interest which the public feel in sensational anecdotes of madness, and in a medley of quotations from all sorts of authors concerning it. The reader is not unlikely to finish the perusal of the book with a conviction that any confusion which its incoherent character may naturally have produced, is an indication of some obscure disease of the brain or mind requiring instant medical advice. In that case, the book may possibly have answered its purpose.—*The Westminster Review*, October, 1868.

CORRESPONDENCE.

The Education, Position, and Pay of Assistant Medical Officers of County Asylums.

We have received the following letter from Dr. Crichton Browne with reference to the *Occasional Note* on the "Education, Position, and Pay of Assistant Medical Officers of County Asylums," published in the October number of the *Journal of Mental Science* :—

West Riding Asylum, Wakefield,
22nd September, 1868.

MY DEAR DR. ROBERTSON,—

The medical staff of this Asylum consists of a Medical Director, two Assistant Medical Officers—one acting in the male and one in the female department—and two Clinical Clerks—one acting under the direction of each of the Medical Assistants. The salary of the Senior Medical Assistant for the time being is £125, with the usual allowances, and that of the Junior, £100, while the Clinical Clerks receive no salary, but only furnished apartments, board, &c., and instruction in mental and nervous diseases, in return for their services. After eighteen months' experience of them, I am strongly impressed with the value of these Clinical Clerks, and should not now like to be without them. They are of great service, not merely in keeping the case books, but in widening and extending that general and unremitting supervision which I believe to be so important in a large establishment like this, and in helping on the medical work in various ways. It is almost impossible for me to describe to

you the vivifying influence which these ardent young men, fresh from the schools, exert upon the more confirmed Asylum Medical Officers. They rub off the rust of routine, and create a necessity for vigorous reading. They afford, too, wonderful facilities for carrying out scientific investigations and careful treatment, while they are themselves undergoing the best preparation for subsequent Asylum appointments, and even for general practice. One of my present assistants commenced here as Clinical Clerk. The important point is that the Clinical Clerks should be wisely and cautiously chosen, as it would not do to introduce young practitioners indiscriminately into an institution of this kind. Judicious selection, however, together with paramount and summary authority over them left in the hands of the Medical Superintendent, ought to obviate every danger and difficulty. I hold each of my Medical Assistants responsible for the good conduct of his particular clerk, and have never any trouble. They all work quietly and discreetly, and harmoniously together.

When the additions now in progress here, which will raise the number of lunatics to 1,300, are completed, I mean to suggest to the Committee of Visitors some modifications of the present arrangements. I shall propose that the salary of the Senior Assistants be raised permanently to £150 per annum, that of the Junior remaining where it is at £100, and that £50 a-year be allowed to each of the Clinical Clerks. I feel persuaded that even this small sum will enable me to command a very superior class of men, will render those appointed more contented, and will induce them to remain with me for twelve months.

By the way, the best Clinical Clerk who has joined me is a graduate of the Edinburgh University, with first-class honours. When he was appointed I had a Cambridge man as an applicant, and the next vacancy I have promised to an F.R.C.S. Eng., by examination.

In great haste,

I am,

Dear Dr. Robertson,

Yours most faithfully,

J. CHRICHTON BROWNE.

Dr. Lockhart Robertson, &c., &c.

Regulations as to Clinical Clerks.

1. They shall be appointed by the Medical Director, for periods of three or six months, or longer duration under special circumstances, and shall be subject to summary removal by him on account of misconduct or neglect.

2. They shall devote their whole time to the duties of their office, and shall not engage in any other occupation.

3. They shall be under the control and authority of the Medical Director, and subject to his supervision, shall receive instructions from the Assistant Medical Officers as to the performance of their duties.

4. They shall accompany the Medical Officers on their ordinary visits to the wards of their respective departments, and shall take careful notes of their observations on the various cases and the treatment ordered, for insertion in the case book.

5. They shall also visit the wards of their respective departments at other times when directed by the Medical Officers to do so, with the view of obtaining additional information respecting the cases under treatment.

6. They shall aid the Assistant Medical Officers generally in the discharge of their duties, but shall pay special attention to the condition of the case books, in which they shall keep careful records of all the cases under treatment, being more particularly full and explicit regarding those which are of recent origin, which are undergoing modifications in their character, which are being subjected to active treatment, or which are complicated by accidents or dangerous propensities.

7. They shall attend in the waiting rooms of their respective departments on the admission of new patients, shall note their condition, and endeavour to obtain from the relatives or friends, or Poor Law Officers accompanying them, reliable information as to their antecedent history.

8. They shall attend all *post mortem* examinations and assist in their performance, or take notes of the pathological conditions revealed, according as they may receive instructions from the senior Medical Officer present.

9. They shall assist in any surgical operations or scientific investigations that may be in progress in the Asylum during the period of their residence there, and in the absence of the dispenser shall compound the medicines for the wards, under the supervision of the Assistant Medical Officers.

10. They shall exert what moral influence they can with the patients for their benefit, and shall endeavour to promote their employment and recreation.

11. They shall immediately report to the Medical Director any instance of misconduct or neglect on the part of a subordinate officer, attendant, nurse, or servant, that may come to their knowledge.

12. They shall not leave the Asylum together, and shall only absent themselves at any time with the sanction of the Medical Director, and for such period as he may permit.

J. CRICHTON BROWNE,

Medical Director.

Books, Pamphlets, &c., received for Review, 1868.

(Continued from Journal of Mental Science, July, 1868).

Books Received.

- 1—Sea-sickness and How to Prevent it—an Explanation of its Nature and Successful Treatment, through the Agency of the Nervous System, by means of the Spinal Ice-bag, with an Introduction on the General Principles of Neuro-Therapeutics. By John Chapman, M.D. Second Edition, enlarged. Trübner and Co., 1868.

This edition contains a concise and lucid introductory exposition of the Author's pathological and therapeutical doctrines; a section on the Physiology of Vomiting has also been added; and the number of cases showing the successful use of the spinal ice bag in sea-sickness has been increased. It does not, of course, fall within the scope of this Journal to give any opinion on the treatment of sea sickness; but the arguments adduced by Dr. Chapman in the introductory part on the General Principles of Neuro-Therapeutics, have a really practical bearing on the treatment of insanity. We are certainly not prejudiced in favour of Dr. Chapman's opinions; on the contrary, we are rather prejudiced against them; but we think it much to be desired that some one of our readers, who has the opportunities, would give the application of heat and cold to the spinal cord a fair and rigid trial in the treatment of the different forms of insanity. To us it undoubtedly appears that the pathological doctrines of Dr. Chapman are based on insufficient support, and too theoretical; but it may well be that the practice is good, though the reasons given for its success, ingenious as they assuredly are, are not altogether well founded.

- 2.—On the Wasting Diseases of Infants and Children. By Eustace Smith, M.D. London: Physician-Extraordinary to his Majesty the King of the Belgians, &c. James Walton, 1868.

This is a compact and handsome volume, the inside of which does not belie the fair promise of its outside. It contains a practical and scientific account of the diseases which give rise to slow wasting in children, and strikes us as particularly valuable for the detailed direction which it gives for the examination, management, and treatment of the little patients.

- 3.—A Manual of the Diseases of the Skin. By Balmance Squire, M.B., Surgeon to the West London Dispensary for Diseases of the Skin. Churchill and Sons, 1868.

It contains concise descriptions of such diseases of the skin as occur in English practice, and will be found useful as a handy book both by the student and the busy practitioner. It is very well bound, presenting in this respect a praiseworthy distinction from a great many books which seem to be only loosely put together in order that they may fall to pieces at the earliest opportunity.

- Researches on the Intimate Structure of the Brain, 2nd series. By J. Lockhart Clarke, F.R.S. (*From the Philosophical Transactions. Part I., 1868.*)

This able monograph will be noticed in the April number of this Journal.

- Address on Health, delivered at the Congress of the National Association for the promotion of Social Science, held at Birmingham, October 1868. By Henry W. Rumsey, M.D., President of the Health Department of the Association. (*Reprinted from the "Transactions" for Private Circulation.*) London, 1868. *See Part I., Occasional Notes of the Quarter.*

- Deformities of the Mouth, Congenital and Accidental their Mechanical Treatment. By Robert Ramsey and J. Oakley Coles, Dentist to the Hospital for Diseases of the Throat. John Churchill and Sons, New Burlington Street, 1868.

- On Matter and Force : Croonian Lectures delivered at the Royal College of Physicians, in 1868. By Hy. Bence Jones, M.D., F.R.S., Consulting Physician to St. George's Hospital. John Churchill and Sons, New Burlington Street, 1868. *See Part II., Reviews.*

- Cases of Disease of the Nervous System in Patients the Subjects of Inherited Syphilis. (Reprinted, with slight alterations, from the "Transactions of the St Andrew's Medical Graduates' Association," vol. i. 1868.) By J. Hughlings Jackson, M.D., F.R.C.P., Physician to the Hospital for Epilepsy and Paralysis, and Assistant-Physician to the London Hospital. John Churchill and Sons, New Burlington Street, 1868.

- On Digitalis ; with some Observations on the Urine. By T. L. Brunton, B.Sc., M.B., late Senior President of the Royal Medical Society, and late Resident Physician to the Clinical Wards, Royal Infirmary, Edinburgh. John Churchill and Sons, New Burlington Street, 1868.

- The Theory of the Treatment of Disease adopted at Ben Rhydding. By Wm. Macleod, M.D., F.R.C.P. Edin., Senior Physician to Ben Rhydding. John Churchill and Sons, New Burlington Street, 1868.

- "Hurried to Death ;" or, a few Words of Advice on the Danger of Hurry and Excitement, especially addressed to railway travellers. By Alfred Haviland, Member of the Royal College of Surgeons of England. London : Henry Renshaw, 356, Strand, 1868.

- A Handbook of Uterine Therapeutics, and of Modern Pathology and Diseases of Women. By Edward John Tilt, M.D., M.R.C.P. Third Edition. Chapters :—1. Uterine Dietetics—2. Antiphlogistics—3. Sedatives—4. Caustics—5. Tonics—6. Hæmostatics—7. Emmenagogues—8. Specifics—9. Uterine Orthopædics—10. Treatment of Complications—11. Treatment of Sterility—12. Prevention of Uterine Affections—13. India and Uterine Affections—14. Formulary. John Churchill and Sons, New Burlington Street.

- Transactions of the St. Andrew's Medical Graduates' Association. Edited by Dr. Sedgwick. Vol. I. John Churchill and Sons, New Burlington Street, 1868.

Cape of Good Hope : Report on the General Infirmary, Robben Island, for the year 1867. Presented to both Houses of Parliament by command of His Excellency the Governor. 1868. Cape Town : Saul Solomon and Co., Steam Printing Office, 49 and 50, St. George's Street, 1868.

Report of the Proceedings of the Association of Medical Superintendents of American Institutions for the Insane, at their Twenty-second Annual Meeting, held at Boston, Mass., on the 2nd, 3rd, 4th, and 5th days of June, 1868. Published by direction of the Association. Harrisburg : Theo. F. Scheffer, Printer and Bookseller, 1868.

Contains an interesting history of the proceedings at each annual meeting of the American Psychological Association since its foundation in 1844.

The Nuisance of Street Music; or a Plea for the Sick, the Sensitive, and the Studious. By a London Physician. Henry Renshaw, 356, Strand, London. 1869.

*"Brays the loud trumpet; squeaks the fiddle sharp;
Winds the French horn; and twangs the tinkling harp."*

Rejected Addresses.

Address on the Relation of Food to Work, and its Bearing on Medical Practice. Delivered before the British Medical Association. By the Rev. S. Haughton, M.D., D.C.L., F.T.C.D. Dublin : Gill. 1868. (*Pamphlet. See Journal of Mental Science, October, 1868. Part II., Reviews.*)

Some of the Educational Aspects of State Medicine. By H. W. Rumsey, M.D., F.R.C.S., &c. London : Ridgway. 1868. (*Pamphlet.*)

A Great Philanthropic Movement : Hot Air Baths for the People. Illustrated by the History of the People's Turkish Bath at Cork, with an estimate of the cost of erecting such establishments, and an account of numerous cases of disease cured by hygienic means after having been given up at the hospitals—the whole forming an important question for the consideration of rate-payers. To which is added a paper on the new earth closets; the introduction of hygiene into religious institutions; prospectus of the hygienic society of Great Britain and Ireland; the kind teachings of nature. London : J. Burns, Progressive Library, 1, Wellington Road, Camberwell, S.E.

An Introductory Address. Delivered at the Westminster Hospital, October 1st, 1868, on the occasion of the opening of the Medical Session. By Francis Mason, F.R.C.S. (Exam.), Assistant-Surgeon to the Westminster Hospital, and Hon. Fellow of King's College, London, &c. London : John Churchill and Sons.

How should we Study Medicine? The lecture introductory to session 1868-9, at Guy's Hospital. By Walter Moxon, M.D., Fellow of the Royal College of Physicians. (*Printed for private circulation.*)

An admirable address.

Historic Teachings; or, Facts for the Thoughtful. A lecture, delivered before the Gloucester Literary and Philosophical Society, in March, 1868. By James George Davey, M.D. London : Messrs. Simpkin, Marshall and Co.

*"Progress is
The law of life—man's self is not yet man!"*

BROWNING.

Appointments.

ALDRIDGE, C., L.R.C.P.L., has been appointed Assistant Medical Officer to the Female Department of the West Riding Lunatic Asylum at Wakefield, vice S. Mitchell, M.D., promoted Deputy Superintendent.

CAREY, F. E., M.D., has been appointed Medical Officer to the Lunatic Asylum, Guernsey, vice De Beauvoir de Lisle, M.R.C.P.L., deceased.

HENSMAN, Mr., M.R.C.S.E., has been appointed Assistant Medical Officer to the Devon County Lunatic Asylum, Exminster.

RICHARDS, JOSEPH P., M.R.C.S.E., has been appointed Assistant Medical Officer to the Middlesex County Lunatic Asylum, Hanwell.

SHUTTLEWORTH, G. E., M.R.C.S.E., has been appointed Assistant Medical Officer to the Asylum for Idiots, Earlswood.

SMITH, E., M.B., has been appointed Resident Medical Superintendent of the Londonderry Lunatic Asylum, vice W. F. Rogan, M.B., deceased.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

QUARTERLY MEETINGS.

The Second Quarterly Meeting of the Medico-Psychological Association (for scientific discussion) will be held in London in January. The meeting will be called by circular as soon as the arrangements for a permanent place of meeting are completed.

HARRINGTON TUKE, M.D., F.R.C.P.,

Honorary Secretary.

37, Albemarle Street, W.

December 22nd, 1868.

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